DOCUMENT RESUME

ED 329 314 JC 910 148

AUTHOR Choy, Susan P.; Tuma, John E.
TITLE Formula for Allocating Matriculation Funds.
INSTITUTION California Community Colleges, Sacramento. Office of the Chancellor.
PUB DATE Mar 91
NOTE 57p.; Discussed as agenda item 5 at a meeting of the Board of Governors of the California Community Colleges (Stockton, CA, March 14-15, 1991). For a related report, see JC 910 149.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Legal/Legislative/Regulatory Materials (090)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Academic Achievement; *Academic Persistence; Ancillary School Services; College Admission; *Community Colleges; Counseling Services; Educational Finance; Educational Legislation; Educational Policy; Enrollment; Financial Support; Government School Relationship; *Mathematical Formulas; Minimum Competencies; Remedial Instruction; *Resource Allocation; School Orientation; State Aid; Student Personnel Services; Student Placement; Two Year Colleges; Two Year College Students
IDENTIFIERS *California Community Colleges

ABSTRACT

In spring 1990, the Chancellor of the California Community Colleges convened the Matriculation Funding Task Force to review the standards used to estimate matriculation costs and the formula used to allocate state funds among districts. The task force expanded the scope of the matriculation services used as standards for estimating the cost of matriculation and the relative costs of serving different categories of students. Revised standards included an expanded orientation process; more extensive testing and assessment; an educational plan for each student; an expanded research and evaluation funding allocation; and expanded coordination of and training for matriculation activities. The task force recommended that the Chancellor's Office continue to allocate state funds for matriculation among districts on the basis of weighted enrollment. Under the revised standards, weighted enrollment is calculated using the following formula: 2.4 (number of new students) + 1.0 (number of continuing students) + 0.7 (number of students enrolled in precollegiate basic skills courses). Additional recommendations of the task force included the following: (1) the Chancellor's Office should seek additional resources to ensure full funding of the revised standards and should review regularly the standards, work load measures and resource costs which determine matriculation cost estimates; (2) no district should receive less than 95% of the previous year's total allocation; and (3) funding allocations should be granted yearly cost of living adjustments. The full 42-page task force report is appended to a 3-page Board of Governors brief. (GFW)

ED329314

Formula for Allocating Matriculation Funds.

by

Susan P. Choy
and
John E. Tuma

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

T. Smith

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Discussed as agenda item 5 at a meeting of the Board of Governors of the California Community Colleges (Stockton, CA, March 14-15, 1991).

JC 910148

BEST COPY AVAILABLE

Board of Governors
California Community Colleges
March 14-15, 1991

FORMULA FOR ALLOCATING MATRICULATION FUNDS 5

First Reading, Action Scheduled

Background

Matriculation is a process that enhances access to the California Community Colleges and promotes and sustains the efforts of credit students to succeed in their educational endeavors. The goals of matriculation are to ensure that all students complete their college courses, persist to the next academic term, and achieve their educational objectives.

In 1983, the Legislature directed the Board of Governors to develop a system of student matriculation, and the Chancellor's Office contracted with MPR Associates to estimate the cost of implementing matriculation statewide. The Seymour-Campbell Matriculation Act (Chapter 1467, Statutes of 1986) required the Chancellor to implement specified matriculation services and included provisions for funding them. The Legislature appropriated money for matriculation in 1987 and colleges began implementation of the process with partial funding.

In May 1990, the Board of Governors adopted a formula for allocating matriculation funds that states, in part:

> (b) Each dollar of state matriculation funding shall be matched by three dollars of other district resources devoted to the matriculation program. Funds are currently allocated to the districts using a formula based on weighted enrollment, in which weighted enrollment equals:
>
> 2 x number of new students +
> number of continuing students +
> .4 x number of enrollments in pre-collegiate basic skills courses.
> (Title 5, Section 55518)

As implementation of matriculation has proceeded, the Board of Governors, the Chancellor's Office, and the Community Colleges have made some changes to the original model upon which this formula was based. In the spring of 1990, the Chancellor convened a Matriculation Funding Task Force composed of staff and

representatives from the field, and contracted with MPR Associates to review the standards used to estimate matriculation costs and the formula used to allocate funds among districts.

This agenda item presents a revised funding formula that is consistent with current cost estimates of matriculation, with the actual service levels of a fully implemented matriculation effort, and with the new matriculation regulations.

Analysis

The Matriculation Funding Task Force established a set of standards for estimating the cost of providing matriculation services and the relative costs of serving different categories of students. The standards are not program specifications, but describe an average set of matriculation services that meets the requirements of the legislation and subsequent regulations.

The major new features of the standards that differ from the original 1983-84 standards are summarized as follows: (1) an expanded orientation process; (2) more extensive testing and assessment; (3) an educational plan for each student; (4) an expanded research and evaluation funding; and (5) expanded coordination and training. Specific details are included in the Appendix, "Assessment of the Matriculation Allocation Formula." The task force proposed that the Chancellor's Office continue to allocate State funds for matriculation among districts on the basis of weighted enrollment. Under the revised standards, weighted enrollment is:

2.4 x number of new students +
number of continuing students +
.7 x number of student enrolled in precollegiate basic skills courses.

Basic skills courses are defined as nondegree applicable, pre-collegiate basic skills courses including reading, writing, computation, learning skills, study skills, and English as a Second Language.

The task force also proposed that the small-college allowance of $50,000 be increased by the COLA each year. The final component of the funding process is that no district would receive less than 95 percent of the previous year's total allocation for matriculation, and any COLA or growth funds would be added to that amount.

The proposed formula does not imply major shifts in funds among districts. (See Appendix for simulations.) The 95 percent guarantee and the application of COLA and growth dollars are consistent with other categorical funding formulas approved by the Board.

In conclusion, the revised formula proposed by the Matriculation Funding Task Force is simple and clear, equitable, consistent with other categorical funding formulas, and uses readily available, auditable data that are comparable across colleges.

Recommended Action

That the Board of Governors adopt the revised formula for allocating matriculation funds proposed by staff and the Matriculation Funding Task Force.

Staff Presentation: *Thelma Scott-Skillman, Vice Chancellor*
Student Services

Karen Halliday, Coordinator
Matriculation

APPENDIX

ASSESSMENT OF THE MATRICULATION ALLOCATION FORMULA

June 1990

Susan P. Choy
John E. Tuma

MPR Associates, Inc.
1995 University Avenue, Suite 225
Berkeley, CA 94704
(415) 849-4942

Prepared for

Chancellor's Office
California Community Colleges

Karen Halliday
Project Monitor

EXECUTIVE SUMMARY

The Chancellor's Office currently allocates matriculation funds to community college districts using a formula based on weighted enrollment in which continuing students are weighted as 1.0, new students as 2.0, and enrollment in basic skills courses as .4. As implementation of matriculation has proceeded, the Board of Governors, Chancellor's Office, and colleges have made some changes the original matriculation model upon which this formula was based. These changes have prompted the Chancellor's Office to review the standards used to estimate matriculation costs and the formula used to allocate funds among districts. To oversee this review, the Chancellor's Office appointed a Matriculation Funding Work Group.

Standards

The Work Group proposed a set of standards for estimating the cost of providing matriculation services and the relative costs of serving different categories of students. The standards are not program specifications. Instead, they describe an average set of matriculation services that meet the requirements formulated in the legislation and accompanying regulations. Districts may choose to deliver the services differently than the standards specify. The proposed standards are as follows:

Admissions: Current expenditures for admissions and records.

Orientation: Five days of one counselor's time to develop materials; one day of preparation for each counselor; a three-hour orientation session for 100 new students at a time; orientation staffed by a counselor and a student worker, assisted by a technician (for one hour per session) and clerical staff (for 16 hours per session).

Assessment: For each new student, three one-hour tests, including machine-scored reading and mathematics tests and a writing test holistically scored by faculty; two additional tests for students with limited English proficiency.

Pre-registration counseling: A 30-minute counseling session for each new student before registration.

Post-registration counseling: A 40-minute session for each new student to develop an educational plan; an average of 30 minutes of counseling per semester for each continuing

student; an additional 30 minutes per semester for students on probation or enrolled in a basic skills course.

Research and evaluation: A program of institutional research for evaluating the effectiveness of matriculation, supported by an average[1] of one FTE for research, one FTE for programming and half an FTE for clerical support.

Coordination and training: Staff development activities and participation in activities sponsored by the Chancellor's Office, supported by an average of one FTE for matriculation administration, one FTE for coordination, and one FTE for clerical support.

The major new features of the proposed standards can be summarized as follows: 1) an expanded orientation process—the original standards underestimated the time that it would take to familiarize students with campus programs and facilities, introduce them to support services, and review the assessment process; 2) more extensive testing and assessment—experience has shown that appropriate placement in English classes requires a writing test that must be holistically scored by faculty and that additional testing is necessary for students with limited English language proficiency; 3) an educational plan for each student—this is required by the Board of Governors' plan; 4) an expanded research and evaluation function—expectations have increased, especially in the area of test validation; and 5) expanded coordination and training—the original model did not provide for any training, but experience has shown a significant need for staff development activities.

Matriculation Costs

Funding of the proposed standards given current work loads and resource costs would require $191 million in 1989-90. The costs are distributed among the matriculation components as follows:

Admissions	$47.1 million
Orientation	6.4
Testing/assessment	17.4
Pre-registration counseling	22.3
Post-reg. counseling/follow-up	71.8
Research and evaluation	10.4
Coordination and training	16.0
Total	$191.4

[1] Small colleges will be funded for less than one FTE and large colleges for more than one FTE for research.

In 1986-87, the cost of funding the original matriculation standards at 1986-87 work load and resource costs was $133 million. Adjusting this cost for COLAs brings the estimate to $153 million, which is only 80 percent of the $191 million needed to fund the revised standards given current work loads and resource costs.

Allocating Funds Among Districts

The Work Group members proposed that the current approach to allocating state funds for matriculation among districts be continued—in other words, that funds be allocated on the basis of weighted enrollment. Using the relative costs of serving different types of students to calculate the appropriate weights, the following method for determining weighted enrollment is proposed:

weighted enrollment = 2.4 x number of new students +

number of continuing students +

.7 x number of students enrolled in pre-collegiate basic skills courses (i.e. 4 x basic skills ADA).

The proposed formula does not imply major shifts in funds among districts. If the proposed formula had been used to allocate the 1989-90 funds, no district would have received less than 90 percent of what it actually received, and only one district would have received more than 110 percent.

Recommendations

Recommendation 1: The Chancellor's Office should adopt the revised standards as the basis for estimating matriculation costs and for determining the relative costs of serving different types of students.

Recommendation 2: The Chancellor's Office and the community colleges should seek additional resources so that the matriculation standards can be fully funded. In the meantime, the Chancellor's Office should revise the matriculation implementation schedule to reflect what can be done with the funding available.

Recommendation 3: To ensure that estimates of matriculation costs are realistic in light of the most recent law and regulations, the Chancellor's Office should review on

a regular basis matriculation standards, work load measures, and resource costs and the matriculation costs they imply.

Recommendation 4: The state share of matriculation funding should be allocated to the districts using the weighted number of students with new students weighted at 2.4, continuing students at 1.0, and students in basic skills courses at .7.

Recommendation 5: The work load measure for the number of students enrolled in basic skills courses should be changed to: 4 x ADA as reported for the MIS system—that is, ADA in courses coded as *nondegree* applicable pre-collegiate basic skills courses (including reading, writing, computation, learning skills, study skills, and English as a second language).

Recommendation 6: Funds allocated for matriculation should be granted COLA each year and additional funding for growth if work loads increase. The minimum allocation of $50,000 should be increased by the COLA each year as well.

Recommendation 7: To minimize disruption to matriculation services, the new formula should not be implemented until 1991-92. Change should be phased in over several years, with no district receiving less than 95 percent of the previous year's total allocation. Any COLA or growth funds should be added on top.

ACKNOWLEDGMENTS

MPR Associates would like to thank Karen Halliday, Matriculation Coordinator for the Chancellor's Office, and members of her staff for their guidance and for their assistance in helping assemble the information needed for this study. Their enthusiasm and willingness to help made our job considerably easier and much more enjoyable. We would also like to thank the members of the Matriculation Funding Work Group (listed in the Appendix) for the time and energy they devoted to the study. They worked hard to develop standards that were acceptable to the group as a whole and carefully reviewed all our work. It was a pleasure to work with them.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

ACKNOWLEDGMENTS v

LIST OF TABLES vii

SECTION

1 INTRODUCTION 1
- Background 1
- Matriculation Funding 2
- Study Objectives and Methodology 3

2 STANDARDS, WORK LOAD MEASURES, AND RESOURCE COSTS 5
- Proposed Standards 5
- Proposed Work Load Measures 10
- Resource Costs 12

3 MATRICULATION COSTS 14
- Methodology for Calculating Costs 14
- Costs by Matriculation Component 15
- Comparison With the Original Matriculation Model 21

4 ALLOCATING FUNDS AMONG DISTRICTS 25
- Proposed Formula 25
- Implications of the Proposed Formula 26

5 PROGRAM-BASED FUNDING, CATEGORICAL FUNDING, AND MATRICULATION 36
- Program-Based Funding 36
- Program-Based Funding and Categorical Funding for Matriculation 37

6 CONCLUSIONS AND RECOMMENDATIONS 39
- Standards 39
- Matriculation Costs 40
- Allocating Funds for Matriculation 40

APPENDIX

A MATRICULATION FUNDING WORK GROUP 42

LIST OF TABLES

1 Work Load Measures 12
2 Resource Costs 13
3 Matriculation Costs 17
4 Comparison of Original and Proposed Matriculation Models 22
5 New and Basic Skills Students as a Percentage of the Total 28
6 District Allocations for Matriculation: 1989-90 30
7 Simulated District Allocations for Matriculation: 1989-90 32
8 Comparison of Actual Versus Simulated Allocations 34

1 INTRODUCTION

Background

In 1983, the Legislature directed the Board of Governors of the California Community Colleges to develop a system of student matriculation that included, but was not necessarily limited to: 1) an application process with exemptions for students when an application would be inappropriate; 2) a testing program for reading and mathematics to promote appropriate placement; 3) career counseling and academic advisement; and 4) a requirement that students identify their goals.[1] After this legislation was passed, the Matriculation Subcommittee of the Chancellor's Task Force on Academic Quality met frequently over a number of months to develop a model matriculation process. To gather information, members of the Task Force conducted site visits to colleges throughout the state to observe and discuss colleges' assessment, advisement, and registration processes; held regional hearings; and requested staff reports. In addition, the Chancellor's Office contracted with MPR Associates to estimate the cost of implementing matriculation statewide.

In 1984, the Board of Governors submitted to the Legislature a plan for implementing matriculation in the community colleges.[2] Because no state funds were appropriated for matriculation that year, implementation of the plan was postponed. Nevertheless, there was widespread support for matriculation throughout the community college system, and many colleges proceeded with implementation using their own resources. The Seymour-Campbell Matriculation Act of 1986 (Chapter 1457, Statutes of 1986) requires the Chancellor to implement specified matriculation services in the community colleges and included provisions for funding them. In January 1987, the Board of Governors adopted a revised plan that updated the earlier one and that was more explicit about the objectives to be achieved and the accountability expected.[3]

The Board of Governors' revised plan describes matriculation as "a process which brings a college and a student who enrolls for credit into an agreement for the purpose of realizing the

---

[1]Chapter 565, Statutes of 1983.

[2]Board of Governors, California Community Colleges, *Student Matriculation: A Plan for Implementation in the California Community Colleges*, Report to the California Legislature, Sacramento, April, 1984.

[3]Chancellor's Office, California Community Colleges, *Student Matriculation: A Plan for Implementation*, Sacramento, January, 1987.

student's educational objective."[4] The college agrees to provide an admission process, orientation, pre-enrollment assessment, counseling, a suitable curriculum or program, follow-up on student progress (with referral to support services when needed), and a program of institutional research and evaluation. The student's responsibilities are to declare at least a broad educational objective upon enrollment and a specific one within a reasonable period of time, to attend classes and complete assignments, and to maintain progress toward an educational goal according to standards set by the college and the state.

The plan called for systemwide start-up in July 1987 and for phasing in within the colleges over a three-year period (contingent on the availability of funds). The Chancellor's Office required each college to prepare (by December 1987) an implementation plan for its approval. Recognizing the differing levels of readiness among colleges to implement the various matriculation components, the colleges were allowed considerable flexibility in developing their plans. Full implementation of the plan is required by June 30, 1991.

Matriculation Funding

The matriculation regulations adopted by the Board of Governors state that:

"(a) The chancellor shall adopt a funding formula, consistent with the requirements of this Section, for allocating matriculation funds to community college districts complying with the requirements of this chapter.

(b) Each dollar of state matriculation funding shall be matched by three dollars of other district resources devoted to the matriculation program."[5]

Funds are currently allocated to the districts using a formula based on weighted enrollment, in which

weighted enrollment = 2 x number of new students +

number of continuing students +

.4 x number of enrollments in pre-collegiate basic skills courses.

---

[4]Ibid., p. 2.
[5]Matriculation Regulations, Chapter 6 of Division 6 of Part VI of Title 5, Section 55518.

In 1989-90, the state provided $35.6 million for allocation to the districts. Each district was guaranteed at least $50,000. (Three districts—Feather River, Palo Verde, and West Kern—would have received less than $50,000 without this guarantee.) The total number of weighted students was 1,580,809; consequently, each district received approximately $22 per weighted student enrolled in fall 1988.

The weights demonstrate 1) that new students and those enrolled in remedial courses need more intensive matriculation services, especially counseling; 2) that the cost of providing matriculation services to a new student is twice that of providing matriculation services to continuing students (which is because the services new and continuing students receive are different); and 3) that the cost of providing matriculation services to continuing students who are enrolled in basic skills classes is an additional .4 times as much as that of providing services to continuing students who are not enrolled in basic skills classes. These weights were based on the matriculation model developed by the Matriculation Subcommittee of the Task Force on Academic Quality and cost data collected by MPR Associates from a sample of colleges. Because these data were collected for 1982-83, the Chancellor's Office updated the data in 1985 to reflect cost of living increases.

As the Board of Governors, the Chancellor's Office, and the colleges have examined the matriculation model more thoroughly and as implementation has proceeded, some changes have been made. These changes have prompted the Chancellor's Office to review the standards used to estimate costs and the allocation formula.

Study Objectives and Methodology

To oversee this review, the Chancellor's Office appointed a Matriculation Funding Work Group[6] and contracted with MPR Associates to work closely with the Work Group to:

- Consider possible service standards and work load measures for matriculation;
- Review the current allocation formula and assess alternatives; and
- Evaluate the advantages and disadvantages of categorical versus program-based funding.

The Work Group and MPR Associates staff met for two days in March, 1990, to develop appropriate standards and work load measures for matriculation, to discuss the current allocation

[6] Appendix A contains a list of members.

formula, and to consider alternative allocation formulas. During this meeting, the Work Group set several goals for the formula used to allocate funds for matriculation. Specifically, they decided that the matriculation allocation formula should:

- Be simple and clear so that matriculation coordinators and district business officers can understand the basis for their allocations and predict future ones with some certainty;
- Be equitable, which means that because matriculation costs vary by type of student (new and continuing, for example), the allocation of funds to a district should be based on the numbers of each type of student enrolled in that district;
- Use readily available, auditable data that are comparable across colleges; and
- Include provisions for phasing in change gradually in order to minimize disruption in existing programs.

Following the Matriculation Funding Work Group meeting, MPR staff developed new cost estimates for each matriculation component, proposed a new formula, and produced simulations that indicated how the new formula would affect the allocation of funds among districts. The cost estimates were based on the standards and work load measures agreed upon at the meeting and on resource cost data provided by the Chancellor's Office. The Matriculation Funding Work Group reviewed the results of MPR's work at its April meeting, suggested some refinements, and developed recommendations for the Chancellor. At its final meeting, the Work Group reviewed and commented on the draft report prepared by MPR Associates.

To obtain additional input from the field, the Chancellor's Office distributed a questionnaire to college staff in March, 1990, asking for their input on the strengths and weaknesses of the existing formula and for their suggestions about revising the formula.

2 STANDARDS, WORK LOAD MEASURES, AND RESOURCE COSTS

The Matriculation Funding Work Group was very concerned that the matriculation allocation formula be equitable, with equity in this context meaning that districts' allocations for different types of students reflect the relative costs of providing services to them. The cost of providing matriculation services depends on: 1) standards, which describe the level and types of services to be provided—how much counseling, how many tests, and so on; 2) work load measures, which represent the number of students to be served—how many students to be counseled and how many tested, for example; and 3) resource costs, including salaries and benefits for certificated and classified personnel staffing the various matriculation activities, and the cost of tests, supplies, and so on. Therefore, any analysis of matriculation costs and methods for allocating funds for matriculation must begin with specifying standards, selecting appropriate work load measures, and identifying relevant resource costs.

Specifying standards meets another objective of this study as well: to develop standards for program-based funding. Although the state's 25 percent share of matriculation is funded through a categorical program, the local 75 percent share will come from the districts' allocation for student services once program-based funding is implemented.

Proposed Standards

To develop standards, the Matriculation Funding Work Group started with the standards specified by the original Matriculation Task Force in 1983 and revised them to include services that have been added by the Board of Governors' Plan (such as the student educational plan) and services that during the first years of implementation were shown to be necessary (such as additional testing for students with limited-English proficiency). For each matriculation component, we present changes from the original model in the discussion that follows.

It is important to emphasize that the funding standards are not program specifications; instead, they describe an average set of matriculation services that meet the requirements formulated in the legislation and accompanying regulations. Districts may choose to deliver the services differently than the standards specify. For example, the standards allow for half-hour individual counseling sessions for continuing students. In practice, colleges can (and many do) provide group sessions rather than individual counseling.

Admissions

All students wanting to enroll in a community college must complete an application for admission. The college must process the application and establish a record for the student that contains information on previous education and educational goals. After students have enrolled, the college must maintain records of their grades and progress. Associated with processing applications and maintaining records are costs for staff, supplies, printing, postage, and data processing.

Since all colleges are already performing this function, the proposed standard for admissions is current expenditures for admissions and records, which districts report annually to the Chancellor's Office. To estimate matriculation costs, we used the statewide average per student as the funding standard for admissions and records ($41.91).

Orientation

The Board of Governors' matriculation plan requires that each college provide an orientation program to acquaint new students with the college's programs, services, facilities, and procedures and to inform students about expected standards of performance and students' rights and responsibilities. The plan leaves the exact form and content of orientation up to the discretion of the individual colleges, but recommends that the program begin before classes start and continue after the start of the term. The plan also recommends that colleges consider using student workers and volunteers from student body organizations to help with orientation.

Orientation has turned out to be more comprehensive and time-consuming than originally envisioned. In the original model it was assumed that students could be oriented in one hour, but experience has shown that it typically takes about three hours to fully acquaint students with college programs and facilities, describe the registration process, introduce them to the various support services the college offers, review the assessment process (including describing how assessment results are used), and discuss students' rights and responsibilities. Many colleges require new students to spend a full day at the college, taking tests in the morning and attending an orientation session in the afternoon.

There is probably more variation among colleges in how orientation is conducted than in the delivery of any other component of matriculation. For example, some colleges have developed interactive videos for students to use; others combine orientation, assessment, and counseling in small groups; and still others present information to students in large groups. The

Matriculation Funding Work Group had difficulty trying to describe a "typical" orientation process. To estimate costs, the Matriculation Funding Work Group developed standards that represent how orientation might be conducted—or, at least, show the amount of time and resources that are spent on orientation.

The standards specify that each year one counselor per campus spends five days developing materials and that each counselor spends one day preparing for orientation. They further specify that students are oriented in a three-hour session in groups of 100 and that each session is staffed by a counselor and a student worker, assisted by a technician (who spends one hour on each session) and clerical staff (who spend 16 hours on each session assembling materials and performing other similar tasks). Note that other models could be specified that had the same costs—for example, three one-hour sessions with 33 students each would cost the same as 1 three-hour session with 100 students. *It bears emphasizing again that the Chancellor's Office has no intention of mandating any particular model; the model was specified solely to estimate reasonable costs for orientation.*

Testing and Assessment

The Board of Governors' plan requires that new, nonexempt students be assessed in language and computational skills so that they can be advised about appropriate placement. To meet this requirement, the proposed standards provide that each new student takes 3 one-hour tests, including a writing test that is scored holistically by a faculty member and machine-scored multiple choice tests in reading and math. The standards allow for testing students in groups of 50. The proposed standards also provide for two additional tests (administered in groups of 15) for students who are not proficient in the English language. To organize and coordinate the testing and assessment process, the standards provide colleges with an average of one FTE for assessment coordination and one FTE of clerical support. In practice, small colleges will need less staff time and larger colleges will need more.

The original matriculation model did not include additional testing of students with limited English language proficiency. Since the colleges have begun to implement matriculation, however, it has become clear that many students need this additional testing. While some non-English proficient students are identified at the outset, more often than not the results of the standard tests indicate that the student is not proficient in English and requires a second round of testing.

Holistically scored tests are another addition to the original model. Colleges have found it very difficult to place students appropriately in English classes without determining how well they write. Consequently, increasing numbers of colleges are using a writing test and having it scored holistically by faculty.

Pre-Registration Counseling/Advisement

In most colleges, students have a counseling session after testing, but before enrollment, to discuss their educational goals, review their test results and previous education, and select courses. When appropriate, students are referred to specialized support services.

The proposed standards provide each nonexempt new student with a one half-hour counseling session before registering. To determine the number of counselors needed to serve all new students, it was assumed that during the year counselors spend 75 percent of their time meeting with students. (During the registration period, of course, counselors will spend almost all of their time with students.) To support the counselors, the proposed standards provide an average of one clerical staff person for every four counselors.

Post-Registration Counseling/Follow-Up

The Board of Governors' plan requires colleges to develop an educational plan for each student not exempt from matriculation; to follow the academic progress of each student; and to assist students who have not declared an educational goal, who are enrolled in pre-collegiate basic skills courses, or who have been placed on probation.

The proposed standards provide that sometime after the new student first registers (perhaps, but not necessarily, in the first term), a counselor will spend 40 minutes developing this plan. The requirement that each student have an educational plan was not included in the original matriculation model but was added in the Board of Governors' plan. The standards described here, therefore, provide significantly more counseling than was originally envisioned.

The standards also provide for on average 30 minutes of counseling for one-half of all continuing students each semester. This is merely an average. In practice, some continuing students will be counseled in groups, some will have several appointments shorter than one half-hour, and some will not seek any counseling. In addition to this counseling for continuing students, the standards provide for an additional half-hour of counseling each semester for students on academic probation or for those enrolled in pre-collegiate basic skills courses. Pre-

collegiate basic skills courses are defined in Title V as including courses in reading, writing, computation, learning skills, study skills, and English as a Second Language (ESL) that are designated by the district as *nondegree credit* courses.

Research and Evaluation

The Board of Governors' plan requires each college to develop a program of institutional research for ongoing evaluation of the effectiveness of its matriculation process. In addition, it recommends that colleges use data gathered from the various components of matriculation to develop a computerized data base useful for longitudinal research, planning, and evaluation of outcomes.

The proposed standards provide for an average of one FTE for research, one FTE for programming, and one-half a clerical FTE per campus to support these activities. This is only an average. Small colleges will be funded for less than one FTE in each of these positions, and large colleges will be funded for more than one. The proposed standards also provide for supplies to cover costs associated with research activities.

Coordination and Training

Each college is required to conduct staff development activities deemed necessary for matriculation to succeed and to participate in activities sponsored by the Chancellor's Office to enhance implementing matriculation. To ensure that the districts can meet these obligations, the model provides for one FTE position for administration, one FTE position for matriculation coordination, and one FTE position for clerical support. Again, small colleges will be funded for less than one FTE in each of these positions, and large colleges will be funded for more than one.

Summary

The proposed standards describe a model matriculation process—the levels and types of services to be provided and to whom they are to be provided. The purpose of developing the standards was to estimate overall costs and to determine the relative costs of serving different types of students. *It cannot be emphasized too strongly that colleges are not expected to provide services in exact accordance with these standards and will not be held accountable for doing so. These are funding standards, not prescriptive or expenditure standards.*

Proposed Work Load Measures

Work load measures specify the number of students who receive each service. Because different categories of students are singled out for different matriculation services, different work load measures are needed for students who are new, continuing, on academic probation, enrolled in pre-collegiate basic skills classes, and limited in their English language proficiency (Table 2). To avoid the need for special data collections for matriculation, the Matriculation Funding Work Group tried to identify appropriate work load measures from among the data already reported to the Chancellor's Office.

New students. New students receive the most extensive services: they go through an admissions process, orientation, testing and assessment, and counseling. In addition, a counselor may help them develop an educational plan early in their educational career. Districts report to the Chancellor's Office the number of new students enrolled in the fourth week of the fall term (first census). Not all new students receive matriculation services, however. Students enrolled in only noncredit courses, for example, are automatically exempt. Colleges can exempt other students as well, such as students who have already earned a degree.

To develop a work load measure for new students in order to estimate matriculation costs and simulate alternatives for the 1989-90 allocations, we used the number of new students enrolled at the time of the first census in fall 1988. We assumed that 80 percent of these students were not exempt and that the number of nonexempt students for the whole year was twice the fall number (Table 1).

Continuing students. Continuing students receive additional counseling and follow-up as they progress through their programs. The continuing students category includes those returning after an absence, returning transfer students, and continuously enrolled students. Districts report the number of continuing students enrolled each term along with the number of new students. To estimate matriculation costs, we used fall 1988 enrollment data and assumed that the total number of continuing students for the year was twice the fall number.

Probationary students. Students on academic probation receive additional counseling over and above that provided to other continuing students. To estimate the number of probationary students in fall 1988, we referred to the numbers the colleges reported in their matriculation plans in 1987. At that time, 12 percent of continuing students were on probation. We therefore assumed that 12 percent of continuing students in fall 1988 were on probation as well.

Basic skills students. Students enrolled in basic skills classes also receive additional counseling over and above that provided to other continuing students. For simplicity and consistency, the Matriculation Funding Work Group chose the same definition of basic skills used for other purposes by the Chancellor's Office: enrollments in courses coded in the MIS system as *nondegree* applicable pre-collegiate basic skills courses (including reading, writing, computation, learning skills, study skills, and English as a Second Language).

This definition of basic skills differs significantly from the one currently used for the matriculation allocation formula. Colleges are now asked to report enrollments in English courses equivalent to the second course below English 1A or lower and in math below the level of Algebra 1.

Districts report basic skills average daily attendance (ADA) on the Apportionment Attendance Report (CCFS 320), but because each student enrolled in any basic skills course needs additional counseling, what is important to know is the number of students enrolled in basic skills courses, not the ADA. Converting ADA to headcount enrollment requires making some assumptions about the number of students who make up one basic skills ADA. We assumed that the number was four students. This is the same as saying that full-time students enrolled in basic skills take an average of three to four credits in basic skills.

To estimate the cost of matriculation and conduct the simulations, we used the basic skills ADA reported for fall 1989 multiplied by four (to represent basic skills headcount), rather than fall 1988 as we did for the other kinds of students. This was done because the current definition of basic skills had not been adopted in fall 1988; therefore, the fall 1989 data more accurately estimate the number of basic skills students in fall 1988 (according to the proposed definition of basic skills) than the fall 1988 data do. Note that if districts increase their numbers of basic skills courses (by changing the designation of some courses that are now degree applicable to nondegree applicable, for example) the work load (and consequently the cost of matriculation) will increase.

New limited-English language proficiency students. New students with limited-English proficiency receive additional testing and assessment. Some students are identified immediately as needing special testing and exempted from the regular testing process, but in many cases it is not until the student completes the regular tests that their need for special assessment is obvious. The colleges do not collect data on the number of students who need special testing. However, the Chancellor's Office has estimated that 5 percent of all community college students have

limited-English proficiency; therefore we assumed that 5 percent of all new students are in this category as well.

No work load measure was included for students without a declared educational goal even though they are a target group in the Board of Governors' plan. It would be difficult, if not impossible, to collect comparable data on the number of undeclared students from all colleges. There is no clear definition of undeclared; furthermore, students tend to move in and out of the "undeclared" state on a regular basis. Students who are undeclared often do need more counseling, but their needs can be met through the normal provision of counseling for continuing students—they are likely to be among the one-half who seek counseling each semester.

Table 1 Work Load Measures

Number of Students	Fall	Fall x 2
New	383,394	766,788
Continuing	741,548	1,483,096
Probationary*	88,986	177,972
Basic skills**	117,576	235,152
Limited-English proficiency***	19,170	38,339

* Assumed to be 12 percent of continuing students.
** Assumed to be four times 1989-90 basic skills ADA.
*** Assumed to be 5 percent of new students.

Resource Costs

The unit costs used to estimate matriculation costs are based on statewide averages. The Chancellor's Office Management Information Services Division provided us with average full-time salaries for EE06 staffing categories for 1989. Categories we assumed would be used for matriculation include executive/administrative/managerial, faculty, professional/non-faculty, and clerical and secretarial. Counselors, who are not identified separately in the EE06 reports, are on the faculty salary schedule in most colleges (a fact verified by a survey of a sample of 33 colleges

by the Chancellor's Office). To estimate the cost of providing the counseling required for matriculation, we calculated the hourly cost for contact time—the time counselors actually spend counseling students—and the clerical costs associated with that time.[1]

We added 20 percent to the average annual salary in each category for benefits. The actual benefit rate is higher for many faculty and staff, but it is much lower (or zero) for many part-time employees. The annual salaries and benefits for each staffing category are shown in Table 2.

Table 2 Resource Costs

Annual Salaries and Benefits	1989
Administrator/executive/manager	$69,850
Faculty	53,155
Counselor* and support (.25 FTE clerical/counselor)	60,119
Professional/non-instructional	43,553
Technician/programmer	38,734
Clerical	27,854

* Assumes counselors paid on the faculty pay schedule.

[1] The calculation of hourly costs was based on the number of hours they spent counseling per year. The original matriculation model used actual data from a sample of colleges on the average number of days worked per year (181), the average number of hours worked per day (6.36), the amount of time spent with students (75 percent), and average salaries. For this study, however, we did not have data on actual salaries, but had to rely on the average faculty salary, which is typically for a 10-month year. To obtain an hourly rate for counselors comparable to the hourly rate for faculty, we divided the average faculty salary by 175 days and then by 6.36 hours. Many counselors work 11 or 12 months a year, but they receive additional pay for the time they work beyond 10 months. Their hourly rate on average is the same as the hourly rate for a counselor who works only 10 months.

3 MATRICULATION COSTS

Methodology for Calculating Costs

The standards, work load measures, and resource costs described above specify what is to be provided to whom, and the work load measures specify the number of students to be served. This information, combined with resource costs, can be used to generate estimates of the statewide cost of matriculation and to determine the relative costs of providing matriculation services to different categories of students. The relative costs can then be used to compute weights for the allocation formula.

The matriculation standards specify different kinds and levels of services for different categories of students including new students, continuing students, students enrolled in basic skills courses, students who are on probation, and students with limited-English language proficiency. For example, colleges provide more counseling for students enrolled in basic skills courses than they do for students who are not. As a result, the costs of providing counseling to students in basic skills courses are higher than those costs of providing counseling to other continuing students. To achieve the goal of an equitable formula based on the cost of providing services, we should compute separately the costs of providing services to each type of student to determine their relative costs, and we should weight them differently when allocating funds.

Technically speaking, the most equitable allocation formula would take into account the number of each type of student enrolled at each campus. To develop such a formula, we would calculate separately the costs of serving each type of student and then determine the relative costs. To enable the Chancellor's Office to use the formula, districts would have to report annually the numbers of students in each category. However, the goal of equity must be weighed against the other goals for the formula, including simplicity and clarity and the desire to use only regularly collected, comparable, and auditable data. Districts currently report the numbers of new and continuing students and ADA in basic skills classes to the Chancellor's Office each semester. These data are all reported using common definitions and are subject to audit by the Chancellor's Office. Districts do not keep comparable, auditable data on the number of students on probation or on the number of students with limited-English language proficiency.

However, the survey conducted by the Chancellor's Office indicated that many college staff were particularly concerned with the additional costs associated with serving students with

limited-English language proficiency and wanted to ensure that these costs were taken into account when funds were allocated. One way to accomplish this objective is through using the Title 5 definition of basic skills for determining the work load for counseling. This definition includes *nondegree*, credit ESL courses, whereas the definition of basic skills used in the current allocation formula includes only students enrolled in remedial math and English courses. The extra costs associated with testing and assessing new students with limited-English language language proficiency could be taken into account if costs were computed separately and data on the number of students in this category were reported to the Chancellor's Office.

Costs by Matriculation Component

Table 3 shows in detail the cost of each major matriculation component—admissions, orientation, testing and assessment, pre-registration counseling/advisement, post-registration counseling/follow-up, institutional research, and coordination and training—and how each one was computed. For each component (and many subcomponents), it shows the total cost, the annual cost per student served, the annual cost per fall enrollee for new students and continuing students, and the additional annual cost per fall enrollee for basic skills and limited-English language proficiency students. The "annual cost per fall enrollee" was used because the Chancellor's Office makes its annual matriculation allocations based on fall enrollment data.

The statewide cost for Admissions and Records was estimated to be $47.1 million in 1989-90, based on expenditures reported for previous years, adjusted for cost of living increases. This amounts to $41.91 per fall enrollee. The actual costs for all students are not exactly the same, however. Costs for new students are somewhat higher than for continuing students because their applications for admission must be processed. Costs are also somewhat higher for students whose English is limited than for other students because limited-English speaking students often need extra assistance during the registration process. Because it is very difficult to determine the actual additional costs incurred, it was assumed that costs for all students were the same.

A total of $6.4 million, or $16.78 per new fall enrollee, is required statewide to fund orientation as described in the standards above. Of the total, 48 percent ($3.1 million) is needed to purchase materials to distribute to students, and 42 percent ($2.7 million) to staff orientation sessions. The remaining 10 percent ($0.6 million) is needed to pay for staff preparation time and for developing orientation materials.

Funds needed to conduct testing and assessment according to these standards total $17.4 million. The administration of testing and assessment—that is, assessment coordination and clerical support—requires $7.1 million (41 percent of the total costs). Holistic scoring of tests requires $4.9 million (28 percent). The remaining $5.4 million (31 percent) is needed for purchasing, administering, and scoring the tests and notifying students of the results. Testing and assessment costs $44.59 per new fall enrollee and an additional $19.07 per new limited-English language proficiency student.

The costs for pre-registration counseling and advisement total $22.3 million, or $58.20 per fall enrollee. Post-registration counseling and follow-up is the most expensive component of matriculation—$71.8 million. Of this total, $29.5 million (41 percent) is required for preparing the student educational plan, $26.7 million (37 percent) for general counseling for continuing students, $6.4 million (9 percent) for additional counseling for probationary students, and $8.5 million (12 percent) for additional counseling for students in basic skills courses. The remaining $0.7 million (1 percent) is for supplies.

Research and evaluation adds an additional $10.4 million to the total cost of matriculation statewide, and coordination and training another $16.0 million. Costs for these programs were assumed to be equal for new and continuing students.

The total statewide cost of funding matriculation to the standards described in this report was estimated to be $191.4 million. Approximately one-half (49 percent) of the amount required is for counseling, including both pre-registration counseling/advisement and post-registration counseling/follow-up. The annual cost per fall enrollee is $262 for new students and $110 for continuing students, with an additional $73 for students enrolled in basic skills classes, and an additional $19 for new students with limited-English language proficiency.

Table 3 Matriculation Costs

SUMMARY OF RESOURCE COSTS AND WORK LOAD MEASURES USED IN CALCULATIONS

Average Annual Salaries and Benefits*	
Administrator	$69,850
Faculty	$53,155
Counselor + support**	$60,119
Professional	$43,553
Technician/programmer	$38,734
Clerical	$27,854
Average number of counselors per campus	15
Average % time counselors spend with students	75%
Average hours/day--counselor	6.36
Average days per year--counselor	175

Number of Students	Fall	Total (Fall x 2)
New students	383,394	766,788
Continuing students	741,548	1,483,096
Probationary students†	88,986	177,972
Basic skills students††	117,576	235,152
New ESL students†††	19,170	38,339
Percentage of new students not exempt	80%	
Number of campuses	106	

* Assumes benefits are equal to 20 percent of salaries

** Assumes .25 FTE clerical support per counselor

† Assumed to be 12 % of continuing students

†† Assumed to be 4x 1989-90 basic skills ADA

††† Assumed to be 5% of new students

ADMISSIONS	Total costs all colleges	Annual cost per student served	Annual cost per Fall enrollee: Cost per new student	Cost per continuing student	Additional cost per basic skills student	Additional cost per new LEP student
Total costs of admissions	$47,146,319	$20.96	$41.91	$41.91		

ORIENTATION					Total costs all colleges	Annual cost per student served	Annual cost per Fall enrollee: Cost per new student	Cost per continuing student	Additional cost per basic skills student	Additional cost per new LEP student
Standards	Development of materials									
	Days of counselor time	5	(1)		$182,074	$0.30	$0.47			
	Preparation time									
	Days per counselor	1	(2)		$532,128	$0.87	$1.39			
	Session length (hours)	3								
	Students per session	100								
Work load	Nonexempt new students (number served)	613,430								
	Number of sessions necessary	6,134								
	Average number of counselors per campus	15								
Unit Costs	Staff costs per session									
	3 hours of a counselor	$162.05			$994,035	$1.62	$2.59			
	1 hour of a technician	$20.17			$123,752	$0.20	$0.32			
	3 hours of a student worker	$18.00			$110,417	$0.18	$0.29			
	16 hours clerical	$232.12			$1,423,895	$2.32	$3.71			
	Subtotal (staff costs per session)	$432.34	(3)		$2,652,099	$4.32	$6.92			
	Supplies per student	$5.00	(4)		$3,067,152	$5.00	$8.00			
	Total costs for orientation				$6,433,453		$16.78			

Formulas

(1) 1 counselor x average $/counselor/day x 5 x number of colleges

(2) counselors per college x average $/counselor/day x number of colleges

(3) staff $/session x number of sessions

(4) $ for supplies x number of students served

TESTING AND ASSESSMENT				Total costs all colleges	Annual cost per student served	Annual cost per Fall enrollee			
						Cost per new student	Cost per continuing student	Additional cost per basic skills student	Additional cost per new LEP student
	General testing								
Standards	Total number of tests per student	3							
	Of total tests, number that are holistic	1							
	Length of each test (hours)	1							
	Students tested per session	50							
Work load	Number of students tested (Fall & Spring)	613,430							
	Number of testing sessions	12,269							
Unit Costs	Test administration per hour	$20.00	(1)	$736,116	$1.20	$1.92			
	Costs of scoring each standardized test	$0.10	(2)	$122,686	$0.20	$0.32			
	Cost of scoring holistic tests (10 min. per test)	$7.96	(3)	$4,882,752	$7.96	$12.74			
	Cost to purchase each test	$2.00	(4)	$3,680,582	$6.00	$9.60			
	Testing of LEP Students in Addition to General Testing								
Standards	Number of tests in addition to general tests	2							
	Students tested per session	15							
	Length of each test (hours)	1							
Work load	Number of students tested	30,672	(5)						
	Number of testing sessions	2,045							
Unit Costs	Test administration per hour	$40.00	(6)	$163,581	$5.33				$10.67
	Cost of scoring each test	$0.10	(7)	$6,134	$0.20				$0.40
	Cost per test	$2.00	(8)	$122,686	$4.00				$8.00
	Administration of testing and assessment								
Standards	1 FTE for assessment coordination	$38,733.60	(9)	$4,105,762	$6.69	$10.71			
	1 FTE clerical support	$27,854.40	(10)	$2,952,566	$4.81	$7.70			
	Notification costs per student	$1.00	(11)	$613,430	$1.00	$1.60			
	Total costs of testing and assessment			$17,386,297		$44.59			$19.07

Formulas

(1) number of tests x hours/test x administration $/hour x number of sessions
(2) number of standardized tests per student x number of students tested x $/test
(3) (number of holistic tests per student x number of students)/6 x average $/hour for faculty
(4) number of tests x cost per test x number of students tested
(5) 0.05 x number of new students x percentage nonexempt
(6) number of tests x hours/test x administration $/hour x number of sessions
(7) number of standardized tests per student x number of students tested x $/test
(8) number of tests x cost per test x number of students tested
(9) $/year x number of colleges
(10) $/year x number of colleges
(11) number of students tested x notification $/student tested

PRE-REGISTRATION COUNSELING/ADVISEMENT				Total costs all colleges	Annual cost per student served	Annual cost per Fall enrollee: Cost per new student	Cost per continuing student	Additional cost per basic skills student	Additional cost per new LEP student
Standards	Length of counseling session (minutes)	30							
	Number of students counseled per session	1							
Work load	Number of new nonexempt students	613,430							
	Total counseling hours	306,715							
	Total counselors needed	367	(1)	$22,089,667	$36.01	$57.62			
Unit Costs	FTE counselor + support	$60,118.80							
	Supplies per counselor	$612.00	(2)	$224,869	$0.37	$0.59			
	Total costs of pre-registration counseling/advisement			$22,314,537		$58.20			

Formulas

(1) number of counselors x average (salary + benefits + support)/year

(2) number of counselors x supplies $/counselor

POST-REGISTRATION COUNSELING/FOLLOW-UP				Total costs all colleges	Annual cost per student served	Annual cost per Fall enrollee: Cost per new student	Cost per continuing student	Additional cost per basic skills student	Additional cost per new LEP student
Standards	Length of counseling session (minutes)								
	Student education plan	40							
	General counseling	30							
	Probation counseling (additional)	30							
	Basic skills counseling (additional)	30							
	Number of students counseled per session								
	Student education plan	1							
	General counseling	1							
	Probation counseling (additional)	1							
	Basic skills counseling (additional)	1							
Work load	Total number of counseling sessions (Fall & Spring)								
	Student education plan (80% of new students)	613,430							
	General counseling (50% of cont. students)	741,548							
	Probation counseling (additional)	177,972							
	Basic skills counseling (additional)	235,152							
	Total number of counseling hours	986,290							
	Student education plan (80% new @ 40m)	408,954							
	General counseling (50% cont. @ 30m)	370,774							
	Probation counseling (additional 30m each)	88,986							
	Basic skills counseling (additional 30m each)	117,576							
	Total counselors needed	1,182							
	Student education plan	490	(1)	$29,452,890	$48.01	$76.82			
	General counseling	444	(1)	$26,703,190	$36.01		$36.01		
	Probation counseling (additional)	107	(1)	$6,408,783	$36.01		$8.64		
	Basic skills counseling (additional)	141	(1)	$8,467,838	$36.01			$72.02	
Unit Costs	FTE counselor + support	$60,118.80							
	Supplies cost per counselor	$612.00	(2)	$723,102	$0.41	$0.78	$0.45	$0.73	
	Total costs of post-registration counseling/follow-up			$71,755,803		$77.60	$45.11	$72.75	

Formulas

(1) number of counselors needed for specified type of counseling x (average salary + support)/counselor
(number of specified type of counselors = total counseling hours/annual hours per counselor)

(2) number of counselors x supplies $/counselor

RESEARCH AND EVALUATION				Total costs all colleges	Annual cost per student served	Annual cost per Fall enrollee: Cost per new student	Cost per continuing student	Additional cost per basic skills student	Additional cost per new LEP student
Standards	FTE professional for research per campus	1							
	FTE clerical support per campus	0.5							
Work load	Number of campuses	106							
Unit Costs	FTE researcher	$43,552.80	(1)	$4,616,597	$2.05	$4.10	$4.10		
	Clerical support	$27,854.40	(2)	$1,476,283	$0.66	$1.31	$1.31		
	Supplies per campus	$2,000.00	(3)	$212,000					
	Data processing								
Standards	1 FTE for programming per campus								
Work load	Number of campuses	106							
Unit Costs	FTE programmer	$38,733.60	(4)	$4,105,762	$1.82	$3.65	$3.65		
	Total costs of research and evaluation			$10,410,642		$9.07	$9.07		

Formulas

(1) number of colleges x FTE researchers per college x average salary/researcher
(2) number of colleges x 0.5 FTE clerical staff x average salary/clerical staff
(3) number of colleges x 2,000
(4) number of colleges x FTE programmer per college x average salary/programmer

COORDINATION AND TRAINING				Total costs all colleges	Annual cost per student served	Annual cost per Fall enrollee: Cost per new student	Cost per continuing student	Additional cost per basic skills student	Additional cost per new LEP student
Standards	1 FTE for matriculation administration per camp	1							
	1 FTE for matriculation coordination per campu	1							
	1 FTE clerical support per campus	1							
Work load	Number of campuses	106							
Unit Costs	Administrator	$69,849.60	(1)	$7,404,058	$3.29	$6.58	$6.58		
	Faculty	$53,155.20	(2)	$5,634,451	$2.50	$5.01	$5.01		
	Clerical staff	$27,854.40	(3)	$2,952,566	$1.31	$2.62	$2.62		
	Total costs of coordination and training			$15,991,075		$14.22	$14.22		

Formulas

(1) number of colleges x average salary/dean of matriculation
(2) number of colleges x average salary/matriculation coordinator
(3) number of colleges x average salary/clerical staff

TOTAL COSTS OF MATRICULATION	Total costs all colleges	Percent of total	Annual cost per Fall enrollee: Cost per new student	Cost per continuing student	Additional cost per basic skills student	Additional cost per new LEP student
Total costs of admissions and records	$47,146,319	25%	$41.91	$41.91		
Total costs for orientation	$6,433,453	3%	$16.78	$0.00		
Total costs of testing and assessment	$17,386,297	9%	$44.59	$0.00		$19.07
Total costs of pre-registration counseling/advisement	$22,314,537	12%	$58.20	$0.00		
Total costs of post-registration counseling/follow-up	$71,755,803	37%	$77.60	$45.11	$72.75	
Total costs of research and evaluation	$10,410,642	5%	$9.07	$9.07		
Total costs of coordination and training	$15,991,075	8%	$14.22	$14.22		
TOTAL COSTS OF MATRICULATION	$191,438,125	100%	$262.36	$110.30	$72.75	$19.07
Student weights for matriculation			2.38	1.00	0.66	0.17
Student weights for matriculation including LEP with new students			2.39	1.00	0.66	0.00

Comparison With the Original Matriculation Model

Table 4 summarizes the major differences between the standards, work load measures, resource costs, and total costs associated with the original matriculation model and those associated with the proposed model. In what we refer to as the "original model," the standards are those developed by the first Matriculation Subcommittee of the Task Force on Academic Quality, but the workload measures and resource costs were updated by the Chancellor's Office in 1986 using 1984-85 enrollment data and 1986-87 cost data. To facilitate comparison, we also show an adjusted cost, which increases the 1986-87 costs to allow for cost of living increases between 1986-87 and 1989-90.

The total cost estimated for the original model was $133 million ($153 million when adjusted for cost of living increases), and the total cost estimated for the proposed model is $191 million. The reasons for the substantial increase lie in changes in standards and work load measures.

Standards

The major changes in the standards can be summarized as follows:

- An expanded orientation process—the original model underestimated the time that it would take to familiarize students with campus programs and facilities, introduce them to support services, and review the assessment process;
- More extensive testing and assessment—experience has shown that appropriate placement in English classes requires a writing test that must be holistically scored by faculty and that additional testing is necessary for students with limited English language proficiency;
- An educational plan for each student—this is required by the Board of Governors' plan;
- An expanded research and evaluation function—expectations have increased, especially in the area of test validation; and
- Expanded coordination and training—the original model did not provide for any training, but experience has shown a significant need for staff development activities.

Work Load Measures

Although the definition of new and continuing students did not change, the number of each increased between 1984 and 1988. Some of the increase in the estimate of the cost of matriculation, therefore, is due to an increase in the number of students to be served. Also responsible for some of the increase in the estimate is the expanded definition of basic skills students to include students enrolled in *nondegree* credit ESL courses and the redefinition of the English and math courses to be included. As a result, the most recent number of basic skills students was much higher than the original one (235,000 compared to 159,000).

Table 4 Comparison of Original and Proposed Matriculation Models

Component	Original Model	Proposed Model
ADMISSIONS		
Cost	$52.4 million*	$47.1 million
Cost (adj.)	$60.1 million	
*Includes some data processing—not strictly comparable to proposed model.		
ORIENTATION		
Standards each counselor, 1 day.	Prep. time: dean, 1 day; each counselor, 1 day Counselors per campus: 11 Session length: 1 hr. Staff for session: 2 hrs. counselor 1 hr. technician 1 hr. student worker 16 hrs. clerical Materials per student: $2 Students per session: 100	Prep. time: counselor, 5 days; Counselors per campus: 15 Session length: 3 hrs. Staff for session: 3 hrs. counselor 1 hr. technician 3 hrs. student workers 16 hrs. clerical Materials per student: $5 Students per session: 100
Work load	80% new students: 509,115	80% new students: 613,430
Resource costs	Counselor & support: $53,212	Counselor & support: $60,119
Cost	$2.6 million	$6.4 million
Cost (adj.)	$3.0 million	

Table 4 (cont'd) Comparison of Original and Proposed Matriculation Models

Component	Original Model	Proposed Model
TESTING AND ASSESSMENT		
Standards	No. of tests: 2 Length of each test: 1 hr. Students tested at once: 50	No. of tests: 3 Length of each test: 1 hr. Students tested at once: 50 No. additional tests for LEP: 2 Length of each test: 1 hr. Students tested at once: 15
Work load	80% new students: 509,115	80% new students: 613,430
Resource costs	Test cost: $2 Scoring cost: $0.08 Test admin. per hr: $10	Test cost: $2 Scoring cost: machine-scored: $0.10 holistically scored: $7.96 Test admin. per hr: general testing: $20 LEP testing: $40
Cost Cost (adj.)	$2.3 million $2.6 million	$17.4 million
PRE-REGISTRATION COUNSELING/ADVISEMENT		
Standards	Length of session: 30 min. No. counseled:1 1 associate dean and 1 clerical staff for 10 counselors	Length of session: 30 min. No. counseled: 1 (Counselor supervision now included in Coordination and Training)
Work load	80% new students: 509,115 Counseling hrs: 254,558	80% new students: 613,430 Counseling hrs: 306,715
Resource costs	Counselor & support: $53,212 Supplies: $532	Counselor & support: $60,119 Supplies: $612
Cost Cost (adj.)	$15.9 million $18.3 million	$22.3 million

Table 4 (cont'd) Comparison of Original and Proposed Matriculation Models

Component	Original Model	Proposed Model
POST-REGISTRATION COUNSELING/FOLLOW-UP		
Standards	Length of session: 30 min. No. counseled:1 1 associate dean and 1 clerical staff for 10 counselors	Length of session: 30 min. (exc. SEP: 40 min.) No. counseled: 1 (Counselor supervision now included in Coordination and Training)
Work load	1/2 continuing: 497,280 Undecided: 689,025 Probation: 229,150 Basic skills: 159,460 Total hours: 720,425	1/2 continuing: 741,548 Probation: 177,972 Basic skills: 235,152 Student education plan: 613,430 Total hours: 986,290
Resource costs	Counselor & support: $53,212 Supplies: $380	Counselor & support: $60,119 Supplies: $612
Cost Cost (adj.)	$44.9 million $51.6 million	$71.8 million
RESEARCH AND EVALUATION		
Standards	Included in Admissions and Records	1 FTE for research per campus .5 FTE clerical support 1 FTE for programming Supplies: $2,000 per campus
Cost Cost (adj.)	$3.0 million $3.4 million	$10.4 million
COORDINATION AND TRAINING		
Standards	Counselor superv. @ $6,930 per couns. Admin: $4.3 million	1 FTE for matric. adm. per campus 1 FTE for matric. coord. per camp. 1 FTE clerical support per campus
Cost Cost (adj.)	$12.1 million $13.9 million	$16.0 million
TOTAL COST (adj.)	$133.2 million $152.9 million	$191.4 million

4 ALLOCATING FUNDS AMONG DISTRICTS

Proposed Formula

The Work Group members proposed that the current approach to allocating funds for matriculation among districts be continued; in other words, that funds be allocated on the basis of weighted enrollment. The costs per fall enrollee—$262 for a new student, $110 for a continuing student, and the additional $72.75 for students enrolled in basic skills courses and $19.07 for new students with limited-English proficiency (for additional testing)—can be used to calculate the appropriate weights for the allocation formula. Given these relative costs, if a continuing student is weighted as 1, a new student should be weighted at 2.38. Students enrolled in basic skills courses should receive an additional weight of .66, and new students with limited-English proficiency should receive an additional weight of .17.

Because the Task Force wanted to keep the formula as simple as possible, the members considered whether or not it was necessary to include all four types of students in the calculation. Even though it costs more to serve new students than to serve continuing students, it is not necessary to distinguish between these two kinds of students in the allocation formula if the ratio of new to continuing students does not vary much among colleges. The formula could be kept simple by using only total students. In this case, the amount allocated per student would indicate that the total includes both new and continuing students. On the other hand, if the ratio does vary, it is more equitable to count new and continuing students separately.

In fact, there are major differences among colleges in their percentages of new and continuing students and in the percentage of students who are enrolled in pre-collegiate basic skills courses (Table 5). There are wide ranges for both variables: the percentage of students that were new ranged from 23 percent to 56 percent, and the percentage enrolled in basic skills ranged from 0 percent to 95 percent. Because of these differences, there is a good argument for differentiating between new, continuing, and basic skills students in the allocation formula.

There is less of a case for including a weight for new students with limited-English proficiency in the formula. If this weight were included, districts would have to collect information on and report the number of new students with limited-English proficiency, which is not required now. Because of the small size of the weight (.17), the Working Group decided that the new data collection would not be worth the effort. However, not using the weight to allocate

funds does not mean that the extra costs for testing students with limited-English proficiency are neglected. These costs are simply added to the costs for new students. This means that each district is treated as if it had the statewide average percentage of limited-English proficiency students (5 percent). Taking this approach, the appropriate weights for new students would be 2.39 for new students and an additional .66 for students enrolled in basic skills courses.

In summary, the Matriculation Funding Work Group recommends that the state share of matriculation funding be allocated to the districts using the weighted number of students in which

weighted enrollment = 2.4 x number of new students +

number of continuing students +

.7 x number of students enrolled in pre-collegiate basic skills courses.

Implications of the Proposed Formula

The proposed formula uses the same factors as the current formula: the weighted numbers of new, continuing, and basic skills students. However, there are two reasons why a district's allocation would change under the proposed formula: the weights differ slightly, and the method for counting basic skills enrollments differs from the formula now in place.

The weight for new students would be 2.4 rather than 2.0 as it is now, and the weight for basic skills students would be .7 rather than .4. Therefore, under the proposed formula, districts with higher than average percentages of new students and districts with higher than average percentages of basic skills students would gain relative to districts with lower percentages of new students and basic skills students.

The definition of basic skills courses differs in the current and proposed formulas. In the current formula, basic skills is defined as enrollments in English courses equivalent to the second course below English 1A or lower and in math below the level of Algebra 1. In the proposed formula, the Title 5 definition of basic skills is used: courses in reading, writing, computation, learning skills, study skills, and English as Second Language, which are designated as *nondegree* credit courses. A number of districts have no basic skills courses according to this definition. These districts offer basic skills classes, but on either a noncredit basis or for degree credit.

The work load measures for basic skills in the two formulas differ as well. The current formula uses the total number of enrollments in basic skills courses. With this work load measure, students who were enrolled in more than one basic skills course would be counted more than once. For the proposed formula we have attempted to get an unduplicated count of students enrolled in basic skills courses by using ADA in basic skills and estimating the number of students that this represents.

Table 6 shows the number of new and continuing students in each district, the basic skills enrollments, the weighted student count, and the actual 1989-90 allocations to each district. To examine the implications of the new formula, we calculated what the 1989-90 allocations to each district would have been if they had been based on the proposed weights and new definition of basic skills (Table 7).

Because of our concern about the appropriateness of assuming that each unit of basic skills ADA represented four students, we produced additional simulations assuming that each unit represented three and five students. Table 8 compares the simulations. The first column shows the actual 1989-90 allocation to each district (from Table 6). The second column shows the amount that would have been distributed to each district if the proposed formula had been used (from Table 7). The third column shows the dollar difference between the two, and the fourth column shows the simulated allocation as a percentage of the actual allocation. The second and third columns show the amounts that would be allocated if we multiplied ADA by three or five, instead of four. The differences are not large.

The proposed formula does not imply major shifts in funds among districts. If the proposed formula had been used to allocate the 1989-90 funds, no district would have received less than 90 percent of what it actually received, and only one district would have received more than 110 percent. That district is Compton, which has a very high percentage of its students enrolled in basic skills courses.

Even though the proposed formula would not cause any major reallocation of funds among districts, there would be some shifts in funds among districts. To minimize disruption to matriculation services, the Work Group believed strongly that change should be phased in, with no district receiving less than 95 percent of the previous year's allocation. Any cost of living adjustments or growth funds would be added on top.

Table 5 New and Basic Skills Students as a Percentage of the Total

District Name	New Fall 88	Cont/Ret Fall 88	Basic Skills (Current)	Total Students (New + Cont.)	New Students as % of Total	Current Basic Skills as % of Total	Basic Skills 1989-90 ADA x 4	% of Total That Are Estimated Basic Skills
ALLAN HANCOCK	3,747	5,077	841	8,824	42.46%	9.53%	470	5.33%
ANTELOPE VALLEY	2,974	5,288	1,416	8,262	36.00%	17.14%	349	4.22%
BARSTOW	953	1,362	685	2,315	41.17%	29.59%	0	0.00%
BUTTE	2,822	6,056	2,383	8,878	31.79%	26.84%	1,342	15.11%
CABRILLO	3,747	8,340	1,344	12,087	31.00%	11.12%	0	0.00%
CERRITOS	5,957	13,696	3,281	19,653	30.31%	16.69%	1,716	8.73%
CHAFFEY	4,253	7,456	3,893	11,709	36.32%	33.25%	431	3.68%
CITRUS	3,092	6,113	1,369	9,205	33.59%	14.87%	800	8.69%
COLLEGE OF THE DESERT	2,425	4,917	2,748	7,342	33.03%	37.43%	1,630	22.20%
COAST	18,210	32,205	2,593	50,415	36.12%	5.14%	2,706	5.37%
COMPTON	1,317	2,733	1,379	4,050	32.52%	34.05%	3,881	95.84%
CONTRA COSTA	13,039	21,294	2,729	34,333	37.98%	7.95%	2,925	8.52%
EL CAMINO	9,372	16,747	4,404	26,119	35.88%	16.86%	0	0.00%
FEATHER RIVER	595	650	269	1,245	47.79%	21.61%	43	3.43%
FOOTHILL	12,792	28,149	1,458	40,941	31.24%	3.56%	276	0.67%
FREMONT-NEWARK (Ohlone)	3,322	5,194	1,611	8,516	39.01%	18.92%	1,677	19.69%
GAVILAN	1,428	2,398	931	3,826	37.32%	24.33%	848	22.18%
GLENDALE	3,564	8,742	2,404	12,306	28.96%	19.54%	1,176	9.56%
GROSSMONT	6,320	12,696	3,439	19,016	33.24%	18.08%	3,109	16.35%
HARTNELL	2,336	4,811	146	7,147	32.69%	2.04%	150	2.10%
IMPERIAL	2,039	2,808	2,972	4,847	42.07%	61.32%	2,978	61.44%
KERN	5,761	11,583	5,182	17,344	33.22%	29.88%	5,228	30.14%
LAKE TAHOE	731	949	330	1,680	43.51%	19.64%	122	7.26%
LASSEN	1,462	1,195	235	2,657	55.02%	8.84%	140	5.27%
LONG BEACH	6,525	14,785	998	21,310	30.62%	4.68%	2,216	10.40%
LOS ANGELES	37,796	67,204	19,899	105,000	36.00%	18.95%	0	0.00%
LOS RIOS	15,327	27,790	4,883	43,117	35.55%	11.32%	4,620	10.72%
MARIN	3,346	6,836	2,004	10,182	32.86%	19.68%	0	0.00%
MENDOCINO	1,313	2,766	465	4,079	32.19%	11.40%	82	2.02%
MERCED	2,467	4,499	1,619	6,966	35.41%	23.24%	1,137	16.32%
MIRA COSTA	3,138	4,391	1,197	7,529	41.68%	15.90%	579	7.69%
MONTEREY	2,022	5,721	2,123	7,743	26.11%	27.42%	0	0.00%
MT. SAN ANTONIO	6,259	15,044	10,822	21,303	29.38%	50.80%	3,767	17.68%
MT. SAN JACINTO	1,900	2,117	828	4,017	47.30%	20.61%	565	14.06%
NAPA	1,693	4,506	545	6,199	27.31%	8.79%	563	9.08%
NORTH ORANGE COUNTY	9,883	21,808	2,643	31,691	31.19%	8.34%	3,839	12.12%
PALO VERDE COLLEGE	243	455	121	698	34.81%	17.34%	252	36.11%
PALOMAR	6,231	11,363	1,147	17,594	35.42%	6.52%	2,262	12.86%
PASADENA	6,286	14,260	4,140	20,546	30.59%	20.15%	2,247	10.93%
PERALTA	10,318	15,920	5,599	26,238	39.32%	21.34%	5,490	20.93%

Table 5 New and Basic Skills Students as a Percentage of the Total

District Name	New Fall 88	Cont/Ret Fall 88	Basic Skills (Current)	Total Students (New + Cont.)	New Students as % of Total	Current Basic Skills as % of Total	Basic Skills 1989-90 ADA x 4	% of Total That Are Estimated Basic Skills
RANCHO SANTIAGO	6,062	15,116	2,063	21,178	28.62%	9.74%	1,542	7.28%
REDWOODS	1,978	4,576	944	6,554	30.18%	14.40%	760	11.60%
RIO HONDO	3,741	9,466	2,554	13,207	28.33%	19.34%	0	0.00%
RIVERSIDE	5,386	10,767	1,713	16,153	33.34%	10.60%	0	0.00%
SADDLEBACK	5,606	14,430	2,364	20,036	27.98%	11.80%	2,562	12.79%
SAN BERNARDINO	8,705	6,327	2,459	15,032	57.91%	16.36%	0	0.00%
SAN DIEGO	19,631	23,950	2,794	43,581	45.04%	6.41%	2,907	6.67%
SAN FRANCISCO	8,196	17,461	3,298	25,657	31.94%	12.85%	2,542	9.91%
SAN JOAQUIN DELTA	4,157	11,413	2,707	15,570	26.70%	17.39%	3,668	23.56%
SAN JOSE	4,875	13,523	5,797	18,398	26.50%	31.51%	5,560	30.22%
SAN LUIS OBISPO (Cuesta)	2,884	4,624	1,690	7,508	38.41%	22.51%	751	10.00%
SAN MATEO	11,549	18,386	5,159	29,935	38.58%	17.23%	3,928	13.12%
SANTA BARBARA	4,024	7,344	1,909	11,368	35.40%	16.79%	2,656	23.37%
SANTA CLARITA (Canyons)	2,089	2,791	635	4,880	42.81%	13.01%	393	8.06%
SANTA MONICA	6,326	12,610	4,407	18,936	33.41%	23.27%	1,668	8.81%
SEQUOIAS	2,837	5,560	1,427	8,397	33.79%	16.99%	0	0.00%
SHASTA	2,287	6,665	603	8,952	25.55%	6.74%	509	5.69%
SIERRA	4,577	7,312	651	11,889	38.50%	5.48%	740	6.22%
SISKIYOU	688	1,443	257	2,131	32.29%	12.06%	537	25.20%
SOLANO COUNTY	3,012	7,039	2,253	10,051	29.97%	22.42%	907	9.02%
SONOMA COUNTY (Santa Rosa)	5,278	17,700	1,932	22,978	22.97%	8.41%	1,796	7.82%
SOUTH COUNTY	7,637	12,829	5,339	20,466	37.32%	26.09%	5,253	25.67%
SOUTHWESTERN	4,310	9,130	3,126	13,440	32.07%	23.26%	3,019	22.46%
STATE CENTER	6,044	12,844	2,516	18,888	32.00%	13.32%	2,257	11.95%
VENTURA	9,099	20,007	4,279	29,106	31.26%	14.70%	4,833	16.61%
VICTOR VALLEY	1,676	3,288	556	4,964	33.76%	11.20%	620	12.49%
WEST HILLS	1,109	1,388	973	2,497	44.41%	38.97%	187	7.49%
WEST KERN (Taft)	329	533	190	862	38.17%	22.04%	13	1.51%
WEST VALLEY	6,741	17,813	3,848	24,554	27.45%	15.67%	4,196	17.09%
YOSEMITE	3,442	10,513	3,056	13,955	24.66%	21.90%	2,233	16.00%
YUBA	2,114	4,776	2,609	6,890	30.68%	37.87%	1,924	27.93%
STATE TOTAL	383,394	741,548	181,183	1,124,942	--	--	117,578	--
Average	5,400	10,444	2,552	15,844	34.76%	18.52%	1,656	12.89%
Maximum	37,796	67,204	19,899	105,000	57.91%	61.32%	5,560	95.84%
Minimum	243	455	121	698	22.97%	2.04%	0	0.00%
Standard Deviation	5,604	9,945	2,758	15,407	6.56%	10.66%	1,627	14.47%

Table 6 District Allocations for Matriculation: 1989-90

Student Weights			
New Students	2.000	Available for distribution	$35,596,000.00
Continuing Students	1.000	Multiplier	$22.52
Basic Skills Students	0.400	Adjusted multiplier	$22.48

District Name	New Fall 88	Cont/Ret Fall 88	Basic Skills	Weighted Total	Allocation
ALLAN HANCOCK	3,747	5,077	841	12,907.4	$290,190
ANTELOPE VALLEY	2,974	5,288	1,416	11,802.4	$265,347
BARSTOW	953	1,362	685	3,542.0	$79,633
BUTTE	2,822	6,056	2,383	12,653.2	$284,475
CABRILLO	3,747	8,340	1,344	16,371.6	$368,074
CERRITOS	5,957	13,696	3,281	26,922.4	$605,283
CHAFFEY	4,253	7,456	3,893	17,519.2	$393,875
CITRUS	3,092	6,113	1,369	12,844.6	$288,779
COLLEGE OF THE DESERT	2,425	4,917	2,748	10,866.2	$244,299
COAST	18,210	32,205	2,593	69,662.2	$1,566,180
COMPTON	1,317	2,733	1,379	5,918.6	$133,065
CONTRA COSTA	13,039	21,294	2,729	48,463.6	$1,089,582
EL CAMINO	9,372	16,747	4,404	37,252.6	$837,531
FEATHER RIVER	595	650	269	1,947.6	$50,000
FOOTHILL	12,792	28,149	1,458	54,316.2	$1,221,163
FREMONT-NEWARK (Ohlone)	3,322	5,194	1,611	12,482.4	$280,635
GAVILAN	1,428	2,398	931	5,626.4	$126,495
GLENDALE	3,564	8,742	2,404	16,831.6	$378,416
GROSSMONT	6,320	12,696	3,439	26,711.6	$600,543
HARTNELL	2,336	4,811	146	9,541.4	$214,514
IMPERIAL	2,039	2,808	2,972	8,074.8	$181,542
KERN	5,761	11,583	5,182	25,177.8	$566,060
LAKE TAHOE	731	949	330	2,543.0	$57,173
LASSEN	1,462	1,195	235	4,213.0	$94,719
LONG BEACH	6,525	14,785	998	28,234.2	$634,775
LOS ANGELES	37,796	67,204	19,899	150,755.6	$3,389,361
LOS RIOS	15,327	27,790	4,883	60,397.2	$1,357,879
MARIN	3,346	6,836	2,004	14,329.6	$322,165
MENDOCINO	1,313	2,766	465	5,578.0	$125,407
MERCED	2,467	4,499	1,619	10,080.6	$226,637
MIRA COSTA	3,138	4,391	1,197	11,145.8	$250,585
MONTEREY	2,022	5,721	2,123	10,614.2	$238,634
MT. SAN ANTONIO	6,259	15,044	10,822	31,890.8	$716,984
MT. SAN JACINTO	1,900	2,117	828	6,248.2	$140,475
NAPA	1,693	4,506	545	8,110.0	$182,333
NORTH ORANGE COUNTY	9,883	21,808	2,643	42,631.2	$958,455
PALO VERDE COLLEGE	243	455	121	989.4	$50,000
PALOMAR	6,231	11,363	1,147	24,283.8	$545,960
PASADENA	6,286	14,260	4,140	28,488.0	$640,481
PERALTA	10,318	15,920	5,599	38,795.6	$872,222
RANCHO SANTIAGO	6,062	15,116	2,063	28,065.2	$630,975
REDWOODS	1,978	4,576	944	8,909.6	$200,310
RIO HONDO	3,741	9,466	2,554	17,969.6	$404,001
RIVERSIDE	5,386	10,767	1,713	22,224.2	$499,655
SADDLEBACK	5,606	14,430	2,364	26,587.6	$597,755
SAN BERNARDINO	8,705	6,327	2,459	24,720.6	$555,781
SAN DIEGO	19,631	23,950	2,794	64,329.6	$1,446,289
SAN FRANCISCO	8,196	17,461	3,298	35,172.2	$790,759
SAN JOAQUIN DELTA	4,157	11,413	2,707	20,809.8	$467,856
SAN JOSE	4,875	13,523	5,797	25,591.8	$575,367
SAN LUIS OBISPO (Cuesta)	2,884	4,624	1,690	11,068.0	$248,836
SAN MATEO	11,549	18,386	5,159	43,547.6	$979,058
SANTA BARBARA	4,024	7,344	1,909	16,155.6	$363,218
SANTA CLARITA (Canyons)	2,089	2,791	635	7,223.0	$162,391
SANTA MONICA	6,326	12,610	4,407	27,024.8	$607,585
SEQUOIAS	2,837	5,560	1,427	11,804.8	$265,401
SHASTA	2,287	6,665	603	11,480.2	$258,103

Table 6 District Allocations for Matriculation: 1989-90

Student Weights			
New Students	2.000	Available for distribution	$35,596,000.00
Continuing Students	1.000	Multiplier	$22.52
Basic Skills Students	0.400	Adjusted multiplier	$22.48

District Name	New Fall 88	Cont/Ret Fall 88	Basic Skills	Weighted Total	Allocation
SIERRA	4,577	7,312	651	16,726.4	$376,051
SISKIYOU	688	1,443	257	2,921.8	$65,689
SOLANO COUNTY	3,012	7,039	2,253	13,964.2	$313,950
SONOMA COUNTY (Santa Rosa)	5,278	17,700	1,932	29,028.8	$652,640
SOUTH COUNTY	7,637	12,829	5,339	30,238.6	$679,839
SOUTHWESTERN	4,310	9,130	3,126	19,000.4	$427,176
STATE CENTER	6,044	12,844	2,516	25,938.4	$583,160
VENTURA	9,099	20,007	4,279	39,916.6	$897,424
VICTOR VALLEY	1,676	3,288	556	6,862.4	$154,284
WEST HILLS	1,109	1,388	973	3,995.2	$89,822
WEST KERN (Taft)	329	533	190	1,267.0	$50,000
WEST VALLEY	6,741	17,813	3,848	32,834.2	$738,194
YOSEMITE	3,442	10,513	3,056	18,619.4	$418,610
YUBA	2,114	4,776	2,609	10,047.6	$225,895
STATE TOTAL	383,394	741,548	181,183	1,580,809.2	$35,596,006
Average	5,400	10,444	2,552	22,264.9	$501,352
Maximum	37,796	67,204	19,899	150,755.6	$3,389,361
Minimum	243	455	121	989.4	$50,000
Standard Deviation	5,604	9,945	2,758	21,808.4	$489,558

Table 7 Simulated District Allocations for Matriculation: 1989-90

Student Weights			
New Students	2.39	Available for distribution	$35,596,000.00
Continuing Students	1.00	Multiplier	$20.51
Basic Skills Students	0.66	Adjusted multiplier	$20.48

District Name	New Fall 88	Cont/Ret Fall 88	Basic Skills	Weighted Total	Allocation
ALLAN HANCOCK	3,747	5,077	470	14,342.7	$293,728
ANTELOPE VALLEY	2,974	5,288	349	12,626.1	$258,572
BARSTOW	953	1,362	0	3,639.7	$74,537
BUTTE	2,822	6,056	1,342	13,686.1	$280,279
CABRILLO	3,747	8,340	0	17,295.3	$354,194
CERRITOS	5,957	13,696	1,716	29,065.9	$595,246
CHAFFEY	4,253	7,456	431	17,905.4	$366,687
CITRUS	3,092	6,113	800	14,030.9	$287,341
COLLEGE OF THE DESERT	2,425	4,917	1,630	11,788.5	$241,418
COAST	18,210	32,205	2,706	77,513.1	$1,587,405
COMPTON	1,317	2,733	3,881	8,442.4	$172,893
CONTRA COSTA	13,039	21,294	2,925	54,387.5	$1,113,812
EL CAMINO	9,372	16,747	0	39,146.1	$801,680
FEATHER RIVER	395	650	43	2,100.2	$50,000
FOOTHILL	12,792	28,149	276	58,903.8	$1,206,302
FREMONT-NEWARK (Ohlone)	3,322	5,194	1,677	14,240.1	$291,626
GAVILAN	1,428	2,398	848	6,370.9	$130,471
GLENDALE	3,564	8,742	1,176	18,036.4	$369,372
GROSSMONT	6,320	12,696	3,109	29,852.9	$611,363
HARTNELL	2,336	4,811	150	10,492.9	$214,887
IMPERIAL	2,039	2,808	2,978	9,646.7	$197,556
KERN	5,761	11,583	5,228	28,802.4	$589,830
LAKE TAHOE	731	949	122	2,776.6	$56,863
LASSEN	1,462	1,195	140	4,781.6	$97,923
LONG BEACH	6,525	14,785	2,216	31,842.1	$652,100
LOS ANGELES	37,796	67,204	0	157,536.4	$3,226,218
LOS RIOS	15,327	27,790	4,620	67,470.7	$1,381,746
MARIN	3,346	6,836	0	14,832.9	$303,767
MENDOCINO	1,313	2,766	82	5,958.3	$122,022
MERCED	2,467	4,499	1,137	11,145.4	$228,248
MIRA COSTA	3,138	4,391	579	12,273.0	$251,342
MONTEREY	2,022	5,721	0	10,553.6	$216,129
MT. SAN ANTONIO	6,259	15,044	3,767	32,488.9	$665,347
MT. SAN JACINTO	1,900	2,117	565	7,030.8	$143,985
NAPA	1,693	4,506	563	8,923.6	$182,747
NORTH ORANGE COUNTY	9,883	21,808	3,839	47,962.4	$982,232
PALO VERDE COLLEGE	243	455	252	1,202.1	$50,000
PALOMAR	6,231	11,363	2,262	27,748.0	$568,256
PASADENA	6,286	14,260	2,247	30,766.3	$630,068
PERALTA	10,318	15,920	5,490	44,203.7	$905,257
RANCHO SANTIAGO	6,062	15,116	1,542	30,622.0	$627,114
REDWOODS	1,978	4,576	760	9,805.0	$200,799
RIO HONDO	3,741	9,466	0	18,407.0	$376,960
RIVERSIDE	5,386	10,767	0	23,639.5	$484,119
SADDLEBACK	5,606	14,430	2,562	29,519.5	$604,535
SAN BERNARDINO	8,705	6,327	0	27,132.0	$555,640
SAN DIEGO	19,631	23,950	2,907	72,786.9	$1,490,618
SAN FRANCISCO	8,196	17,461	2,542	38,727.2	$793,102
SAN JOAQUIN DELTA	4,157	11,413	3,668	23,768.8	$486,767
SAN JOSE	4,875	13,523	5,560	28,843.9	$590,699
SAN LUIS OBISPO (Cuesta)	2,884	4,624	751	12,012.3	$246,002
SAN MATEO	11,549	18,386	3,928	48,580.3	$994,886
SANTA BARBARA	4,024	7,344	2,656	18,714.6	$383,259
SANTA CLARITA (Canyons)	2,089	2,791	393	8,043.4	$164,722
SANTA MONICA	6,326	12,610	1,668	28,830.2	$590,420
SEQUOIAS	2,837	5,560	0	12,340.4	$252,722
SHASTA	2,287	6,665	509	12,466.9	$255,313

Table 7 Simulated District Allocations for Matriculation: 1989-90

Student Weights			
New Students	2.39	Available for distribution	$35,596,000.00
Continuing Students	1.00	Multiplier	$20.51
Basic Skills Students	0.66	Adjusted multiplier	$20.48

District Name	New Fall 88	Cont/Ret Fall 88	Basic Skills	Weighted Total	Allocation
SIERRA	4,577	7,312	740	18,739.1	$383,762
SISKIYOU	688	1,443	537	3,441.7	$70,483
SOLANO COUNTY	3,012	7,039	907	14,836.3	$303,836
SONOMA COUNTY (Santa Rosa)	5,278	17,700	1,796	31,499.9	$645,093
SOUTH COUNTY	7,637	12,829	5,253	34,548.4	$707,522
SOUTHWESTERN	4,310	9,130	3,019	21,423.3	$438,732
STATE CENTER	6,044	12,844	2,257	28,778.6	$589,363
VENTURA	9,099	20,007	4,833	44,943.4	$920,405
VICTOR VALLEY	1,676	3,288	620	7,702.8	$157,748
WEST HILLS	1,109	1,388	187	4,162.0	$85,234
WEST KERN (Taft)	329	533	13	1,327.9	$50,000
WEST VALLEY	6,741	17,813	4,196	36,693.1	$751,445
YOSEMITE	3,442	10,513	2,233	20,213.1	$413,947
YUBA	2,114	4,776	1,924	11,098.5	$227,288
STATE TOTAL	383,394	741,548	117,578	1,735,460.9	$35,596,005
Average	5,400	10,444	1,656	24,443.1	$501,352
Maximum	37,796	67,204	5,560	157,536.4	$3,226,218
Minimum	243	455	0	1,202.1	$50,000
Standard Deviation	5,604	9,945	1,627	23,458.3	$479,648

46

Table 8 Comparison of Actual Versus Simulated Allocations for 1989-90

District Name	Actual Allocation (0)	Simulation 1 Basic Skills ADA x 4 (1)	Dollar Difference (1 - 0)	Simulation 1 Allocation as % of Actual (1 / 0)	Simulation 2 Basic Skills ADA x 3 (2)	Dollar Difference (2 - 0)	Simulation 2 Allocation as % of Actual (2 / 0)	Simulation 3 Basic Skills ADA x 5 (3)	Dollar Difference (3 - 0)	Simulation 3 Allocation as % of Actual (3 / 0)
ALLAN HANCOCK	290,190	293,728	$3,537.24	101.22%	295,441	$5,250.80	101.81%	292,052	$1,861.53	100.64%
ANTELOPE VALLEY	265,347	258,572	-$6,775.15	97.45%	260,303	-$5,043.91	98.10%	256,879	-$8,468.13	96.81%
BARSTOW	79,633	74,537	-$5,095.48	93.60%	75,380	-$4,252.79	94.66%	73,713	-$5,919.55	92.57%
BUTTE	284,475	280,279	-$4,195.96	98.53%	278,863	-$5,611.98	98.03%	281,664	-$2,811.29	99.01%
CABRILLO	368,074	354,194	-$13,879.97	96.23%	358,199	-$9,875.59	97.32%	350,278	-$17,795.85	95.17%
CERRITOS	605,283	595,246	-$10,036.03	98.34%	596,111	-$9,171.13	98.48%	594,401	-$10,881.89	98.20%
CHAFFEY	393,875	366,687	-$27,187.80	93.10%	369,359	-$24,516.25	93.78%	364,075	-$29,800.32	92.43%
CITRUS	288,779	287,341	-$1,437.53	99.50%	287,856	-$922.78	99.68%	286,838	-$1,940.93	99.33%
COLLEGE OF THE DESERT	244,299	241,418	-$2,880.89	98.82%	238,578	-$5,721.25	97.66%	244,196	-$103.37	99.96%
COAST	1,566,180	1,587,405	$21,225.23	101.36%	1,596,103	$29,923.58	101.91%	1,578,899	$12,719.03	100.81%
COMPTON	133,065	172,893	$39,827.71	129.93%	161,583	$28,518.57	121.43%	183,952	$50,886.76	138.24%
CONTRA COSTA	1,089,582	1,113,812	$24,230.08	102.22%	1,116,410	$26,827.85	102.46%	1,111,272	$21,689.62	101.99%
EL CAMINO	837,531	801,680	-$35,851.17	95.72%	810,743	-$26,787.70	96.80%	792,817	-$44,714.34	94.66%
FEATHER RIVER	50,000	50,000	$0.00	100.00%	50,000	$0.00	100.00%	50,000	$0.00	100.00%
FOOTHILL	1,221,163	1,206,302	-$14,861.23	98.78%	1,218,998	-$2,165.20	99.82%	1,193,887	-$27,276.69	97.77%
FREMONT-NEWARK (Ohlone)	280,635	291,626	$10,991.02	103.92%	289,194	$8,558.64	103.05%	294,005	$13,369.58	104.76%
GAVILAN	126,495	130,471	$3,975.74	103.14%	129,047	$2,551.31	102.02%	131,864	$5,368.65	104.24%
GLENDALE	378,416	369,372	-$9,044.65	97.61%	369,527	-$8,889.03	97.65%	369,219	-$9,196.88	97.57%
GROSSMONT	600,543	611,363	$10,819.37	101.80%	607,649	$7,106.22	101.18%	614,994	$14,450.34	102.41%
HARTNELL	214,514	214,887	$372.37	100.17%	216,804	$2,289.75	101.07%	213,012	-$1,502.64	99.30%
IMPERIAL	181,542	197,556	$16,014.79	108.82%	189,613	$8,071.66	104.45%	205,324	$23,782.26	113.10%
KERN	566,060	589,850	$23,790.24	104.20%	578,652	$12,592.68	102.22%	600,800	$34,740.13	106.14%
LAKE TAHOE	57,173	56,863	-$309.71	99.46%	57,089	-$83.88	99.85%	56,642	-$530.55	99.07%
LASSEN	94,719	97,923	$3,204.16	103.38%	98,552	$3,832.82	104.05%	97,308	$2,589.39	102.73%
LONG BEACH	634,775	652,100	$17,325.29	102.73%	651,901	$17,126.10	102.70%	652,295	$17,519.99	102.76%
LOS ANGELES	3,389,361	3,226,218	-$163,142.48	95.19%	3,262,693	-$126,668.14	96.26%	3,190,550	-$198,810.72	94.13%
LOS RIOS	1,357,879	1,381,746	$23,866.49	101.76%	1,381,579	$23,700.17	101.75%	1,381,908	$24,028.95	101.77%
MARIN	322,165	303,767	-$18,398.48	94.29%	307,201	-$14,964.22	95.36%	300,408	-$21,756.85	93.25%
MENDOCINO	125,407	122,022	-$3,385.18	97.30%	123,121	-$2,286.68	98.18%	120,948	-$4,459.80	96.44%
MERCED	226,637	228,248	$1,611.07	100.71%	226,944	$307.07	100.14%	229,523	$2,886.20	101.27%
MIRA COSTA	250,585	251,342	$756.57	100.30%	252,204	$1,619.13	100.65%	250,498	-$86.95	99.97%
MONTEREY	238,634	216,129	-$22,504.87	90.57%	218,572	-$20,061.40	91.59%	213,739	-$24,894.33	89.57%
MT. SAN ANTONIO	716,984	665,347	-$51,637.94	92.80%	659,997	-$56,987.01	92.05%	670,577	-$46,407.23	93.53%
MT. SAN JACINTO	140,475	143,985	$3,510.42	102.50%	143,683	$3,207.92	102.28%	144,281	$3,806.22	102.71%
NAPA	182,333	182,747	$414.28	100.23%	182,891	$557.93	100.31%	182,607	$273.79	100.15%
NORTH ORANGE COUNTY	958,455	982,232	$23,776.14	102.48%	980,216	$21,760.33	102.27%	984,203	$25,747.27	102.69%
PALO VERDE COLLEGE	50,000	50,000	$0.00	100.00%	50,000	$0.00	100.00%	50,000	$0.00	100.00%
PALOMAR	545,960	568,256	$22,295.41	104.08%	566,951	$20,990.29	103.84%	569,532	$23,571.60	104.32%
PASADENA	640,481	630,068	-$10,412.88	98.37%	629,514	-$10,966.68	98.29%	630,610	-$9,871.40	98.46%

Table 8 Comparison of Actual Versus Simulated Allocations for 1989-90

District Name	Actual Allocation (0)	Simulation 1 Basic Skills ADA x 4 (1)	Dollar Difference (1 - 0)	Simulation 1 Allocation as % of Actual (1 / 0)	Simulation 2 Basic Skills ADA x 3 (2)	Dollar Difference (2 - 0)	Simulation 2 Allocation as % of Actual (2 / 0)	Simulation 3 Basic Skills ADA x 5 (3)	Dollar Difference (3 - 0)	Simulation 3 Allocation as % of Actual (3 / 0)
PERALTA	872,222	905,257	$33,035.05	103.79%	896,729	$24,507.08	102.81%	913,596	$41,374.35	104.74%
RANCHO SANTIAGO	630,975	627,114	-$3,861.15	99.39%	628,934	-$2,041.36	99.68%	625,335	-$5,640.78	99.11%
REDWOODS	200,310	200,799	$488.88	100.24%	200,472	$161.91	100.08%	201,119	$808.60	100.40%
RIO HONDO	404,001	376,960	-$27,041.09	93.31%	381,222	-$22,779.33	94.36%	372,793	-$31,208.67	92.28%
RIVERSIDE	499,655	484,119	-$15,536.71	96.89%	489,592	-$10,063.46	97.99%	478,766	-$20,889.00	95.82%
SADDLEBACK	597,755	604,535	$6,779.96	101.13%	602,614	$4,858.33	100.81%	606,414	$8,659.04	101.45%
SAN BERNARDINO	555,781	555,640	-$140.27	99.97%	561,922	$6,141.58	101.11%	549,497	-$6,283.28	98.87%
SAN DIEGO	1,446,289	1,490,618	$44,328.17	103.06%	1,497,535	$51,245.27	103.54%	1,483,853	$37,563.84	102.60%
SAN FRANCISCO	790,759	793,102	$2,343.33	100.30%	793,381	$2,622.86	100.33%	792,828	$2,069.89	100.26%
SAN JOAQUIN DELTA	467,856	486,767	$18,910.60	104.04%	479,737	$11,880.62	102.54%	493,641	$25,785.08	105.51%
SAN JOSE	575,367	590,699	$15,331.31	102.66%	578,377	$3,009.50	100.52%	602,748	$27,380.59	104.76%
SAN LUIS OBISPO (Cuesta)	248,836	246,002	-$2,834.26	98.86%	246,217	-$2,618.75	98.95%	245,791	-$3,045.04	98.78%
SAN MATEO	979,058	994,886	$15,827.27	101.62%	992,712	$13,653.38	101.39%	997,011	$17,952.96	101.83%
SANTA BARBARA	363,218	383,259	$20,041.41	105.52%	378,515	$15,296.76	104.21%	387,899	$24,681.11	106.80%
SANTA CLARITA (Canyons)	162,391	164,722	$2,331.43	101.44%	165,240	$2,849.09	101.75%	164,216	$1,825.20	101.12%
SANTA MONICA	607,585	590,420	-$17,165.00	97.17%	591,394	-$16,191.04	97.34%	589,467	-$18,117.49	97.02%
SEQUOIAS	265,401	252,722	-$12,679.28	95.22%	255,579	-$9,822.11	96.30%	249,928	-$15,473.31	94.17%
SHASTA	258,103	255,313	-$2,790.45	98.92%	256,460	-$1,643.79	99.36%	254,192	-$3,911.80	98.48%
SIERRA	376,051	383,762	$7,710.75	102.05%	385,573	$9,522.27	102.53%	381,990	$5,939.24	101.58%
SISKIYOU	65,689	70,483	$4,794.17	107.30%	69,445	$3,756.09	105.72%	71,499	$5,809.28	108.84%
SOLANO COUNTY	313,950	303,836	-$10,114.03	96.78%	304,171	-$9,778.58	96.89%	303,508	-$10,442.10	96.67%
SONOMA COUNTY (Santa Rosa)	652,640	645,093	-$7,547.01	98.84%	646,248	-$6,391.94	99.02%	643,963	-$8,676.61	98.67%
SOUTH COUNTY	679,839	707,522	$27,683.36	104.07%	697,571	$17,731.69	102.61%	717,254	$37,414.90	105.50%
SOUTHWESTERN	427,176	438,732	$11,555.70	102.71%	433,376	$6,199.78	101.45%	443,969	$16,793.14	103.93%
STATE CENTER	583,160	589,363	$6,203.05	101.06%	588,314	$5,154.20	100.88%	590,388	$7,228.65	101.24%
VENTURA	897,424	920,405	$22,980.76	102.56%	914,295	$16,870.57	101.88%	926,380	$28,955.74	103.23%
VICTOR VALLEY	154,284	157,748	$3,464.09	102.25%	157,413	$3,128.82	102.03%	158,076	$3,791.93	102.46%
WEST HILLS	89,822	85,234	-$4,588.00	94.89%	85,558	-$4,263.69	95.25%	84,917	-$4,905.16	94.54%
WEST KERN (Taft)	50,000	50,000	$0.00	100.00%	50,000	$0.00	100.00%	50,000	$0.00	100.00%
WEST VALLEY	738,194	751,445	$13,250.66	101.80%	745,603	$7,408.58	101.00%	757,158	$18,963.48	102.57%
YOSEMITE	418,610	413,947	-$4,663.48	98.89%	410,997	-$7,613.78	98.18%	416,832	-$1,778.47	99.58%
YUBA	225,895	227,288	$1,393.46	100.62%	223,282	-$2,612.83	98.84%	231,206	$5,311.43	102.35%
STATE TOTAL	35,596,006	35,596,005	—	—	35,596,001	—	—	35,596,004	—	—
Average	501,352	501,352	-$0.02	100.39%	501,352	-$0.07	100.18%	501,352	-$0.02	100.61%
Maximum	3,389,361	3,226,218	$44,328.17	129.93%	3,262,693	$51,245.27	121.43%	3,190,550	$50,886.76	138.24%
Minimum	50,000	50,000	-$163,142.48	90.57%	50,000	-$126,668.14	91.59%	50,000	-$198,810.72	89.57%
Standard Deviation	489,558	479,648	$25,744.76	4.97%	483,209	$21,470.34	3.87%	476,220	$30,610.39	6.15%

5 PROGRAM-BASED FUNDING, CATEGORICAL FUNDING, AND MATRICULATION

Program-Based Funding

The California Community Colleges will be moving to a program-based funding model for allocating the state apportionment to districts. Funds will be allocated in five categories: 1) instruction, 2) instructional services and libraries, 3) student services, 4) maintenance and operations, and 5) institutional support.[1] For each of these categories the following will be defined: work load measures, standards, and unit costs. Work load measures will represent the level of activity for which the district is funded (such as the number of FTE students for instruction). Standards will set the appropriate level of service (such as the ratio of full-time equivalent students to FTE faculty). Unit costs will describe the costs of the major inputs to the model (such as faculty salaries and benefits). With this information, it will be possible to calculate how much it will cost to provide instruction to a certain number of students in classes of a specified size, given current faculty salaries and benefits. With program-based funding, legislators, administrators, and others will be able to see precisely what the state is buying with a given level of funding.

The greatest advantage of program-based funding is that it focuses funding debates on the type and level of services that should be provided. If policy makers agree that the standards are reasonable, then they have to accept the costs that accompany them. Acceptance does not guarantee that the funds will be provided. However, the model clarifies where funding is at the present time relative to where it should be for the colleges to provide the type and level of services specified in the standards. If a category is being funded at less than 100 percent of what the model says is necessary, given the accepted work loads, standards, and unit costs, then the community colleges have a strong case for additional funding.

Funding standards can be used as a source of information for identifying the real costs of providing services. If appropriately specified, the funding standards represent an objective measure of need. They are bench marks against which actual funding levels and the distribution of resources within districts can be evaluated. However, they are not ideal standards that every

[1]For a description of this model see MPR Associates, *The Program-Based Funding Model for the California Community Colleges*, a paper prepared for the Chancellor's Office of the California Community Colleges, July 6, 1988.

college and district must achieve. Instead, they represent appropriate distributions of resources on the average. The diversity within the community college system makes absolute standards undesirable, although the standards do suggest approximate distributions and offer a new way of thinking about the average requirements in each funding category.

Program-Based Funding and Categorical Funding for Matriculation

When funds are provided to districts categorically, they must be spent on the program for which they are designated. The state typically uses categorical programs when programs or services are a priority and when there is concern that districts might not spend sufficient funds unless they are required to do so. Although the state currently provides its share of matriculation funds through a categorical program, there has been some discussion about whether or not matriculation funds should eventually be allocated through the student services component of program-based funding.

Many college and district personnel would like to see matriculation funds allocated through program-based funding because it would give them more flexibility in spending funds according to their needs and priorities. Many personnel involved with matriculation have been opposed to allocating funds for matriculation through program-based funding out of concern that districts will reduce spending on matriculation if funds are not distributed categorically.

One important consideration concerning incorporating matriculation into program-based funding is how it would affect the 50 percent law, which requires that community colleges spend at least 50 percent of their funds on instruction. If matriculation were to be folded into program-based funding, expenditures for non-instructional purposes would increase by $35 million (or more), which would make complying with the law more difficult. At the time of the writing of this report, a number of bills dealing with program-based funding, matriculation, and the 50 percent law have been proposed by individual legislators. The outcome of these bill may impact the advisability of categorical or program-based funding.

Even if the state's 25 percent share continues to be funded categorically, however, program-based funding has important implications for matriculation. The funds districts use to make up the 75 percent local share for matriculation will be allocated through program-based funding in the student services category. It is therefore critical that the Chancellor's Office develop standards for matriculation, select work load measures, and identify resource costs.

When program-based funding is implemented, the most appropriate way to treat small districts will have to be considered. The current matriculation allocation formula deals with small districts by setting a minimum allocation of $50,000. That is, if the allocation generated for a district by the formula is less than $50,000, the district is allocated $50,000. Program-based funding, on the other hand, uses special small district and small college adjustment factors to assist small districts and colleges.

6 CONCLUSIONS AND RECOMMENDATIONS

Standards

The standards developed for matriculation in the early 1980s that were used to develop the current allocation formula for matriculation must be revised and updated to reflect the specifications for matriculation contained in the Board of Governors' plan and Title 5 regulations and the districts' experience during the first few years of implementation. The major changes have been the following:

- An expanded orientation process—the original model underestimated the time that it would take to familiarize students with campus programs and facilities, introduce them to support services, and review the assessment process;
- More extensive testing and assessment—experience has shown that appropriate placement in English classes requires a writing test that must be holistically scored by faculty and that additional testing is necessary for students with limited-English proficiency;
- An educational plan for each student—this is required by the Board of Governor's plan;
- An expanded research and evaluation function—expectations have increased, especially in the area of test validation; and
- Expanded coordination and training—the original model did not provide for any training, but experience has shown a significant need for staff development activities.

The standards described in Section 2 of this report incorporate all of these changes. It should be emphasized again that the standards are for funding purposes only, not service or expenditure standards. Colleges are not required to provide matriculation services exactly as specified here.

Recommendation 1: The Chancellor's Office should adopt the revised standards described in Section 2 as the basis for estimating matriculation costs and for determining the relative costs of serving different types of students.

Matriculation Costs

Funding of the standards described in Section 2 given current work loads and resource costs would require $191 million in 1989-90, which means a state share of $48 million and a local share of $143 million. The costs are distributed among the matriculation components as follows:

Admissions	$47.1 million
Orientation	6.4
Testing/assessment	17.4
Pre-registration counseling	22.3
Post-reg. counseling/follow-up	71.8
Research and evaluation	10.4
Coordination and training	16.0
Total	$191.4

In 1986-87, the cost of funding the original matriculation standards at 1986-87 work load and resource costs was $133 million. Adjusting this cost for COLAs brings the estimate to $153 million, which is only 80 percent of the $191 million needed to fund the revised standards at increased work loads and resource costs.

Recommendation 2: The Chancellor's Office and the community colleges should seek additional resources so that the matriculation standards can be fully funded. In the meantime, the Chancellor's Office should revise the matriculation implementation schedule to reflect what can be done with the funding available.

Recommendation 3: To ensure that estimates of matriculation costs are realistic in light of the most recent law and regulations, the Chancellor's Office should review on a regular basis matriculation standards, work load measures, and resource costs and the matriculation costs they imply.

Allocating Funds for Matriculation

The Matriculation Funding Work Group agreed that the basic approach of the current formula for allocating funds among districts is fair. However, the analysis of standards, work load measures, and costs described in this report suggests that some refinements in the weights and workload measures would be appropriate.

Recommendation 4: The state share of matriculation funding should be allocated to the districts using the weighted number of students in which

weighted enrollment = 2.4 x number of new students.+

number of continuing students +

.7 x number of students enrolled in pre-collegiate basic skills courses.

Recommendation 5: The work load measure for the number of students enrolled in basic skills courses should be changed to: 4 x ADA as reported for the MIS system—that is, ADA in courses coded as *nondegree* applicable pre-collegiate basic skills courses (including reading, writing, computation, learning skills, study skills, and English as a second language).

Recommendation 6: Funds allocated for matriculation should be granted COLA each year and additional funding for growth if work loads increase. The minimum allocation of $50,000 should be increased by the COLA each year as well.

Recommendation 7: To minimize disruption to matriculation services, the new formula should not be implemented until 1991-92. Change should be phased in over several years, with no district receiving less than 95 percent of the previous year's total allocation. Any COLA or growth funds should be added on top.

With these changes, the formula will meet the goals for formula design set by the Matriculation Funding Work Group. It will be simple and clear; equitable; and use readily available, auditable data that are comparable across colleges.

APPENDIX A MATRICULATION FUNDING WORK GROUP

Ms. Terrie Wullbrant
Director of Business Services
Allan Hancock College

Mr. Matt Jackson
Assistant Superintendent
Student Services
Butte College

Mr. Saeed Ali
Dean
Amnesty Education
Chancellor's Office

Ms. Marianne Chick
Analyst
Matriculation
Chancellor's Office

Mr. Bill Cordero
Vice Chancellor
Student Services
Chancellor's Office

Ms. Karen Halliday
Coordinator
Matriculation
Chancellor's Office

Mr. Bill Hamre
Vice Chancellor
Management Information Services
Chancellor's Office

Mr. Roger Merle
Specialist
Fiscal Services
Chancellor's Office

Dr. Paul Boatner
Vice President
Instruction and Student Services
Cuyamaca College

Dr. Judy Miner
Associate Dean
Matriculation
DeAnza College

Mr. Douglas Garrison
Director
Matriculation
College of the Desert

Dr. Richard DeVecchio
Vice President
Student Services
Fullerton College

Dr. Susan Choy
Vice President
MPR Associates, Inc.

Mr. Scott McLaine
Vice President
Student Body Government
Moorpark College

Mr. Floyd Thionnet
Vice President
Student and Educational Services
Moorpark College

Dr. Jim Kossler
Assistant Superintendent
Adminstrative Services
Pasadena Community College District

Mr. Bernard Martinez
Assistant Dean
Counseling
Rio Hondo College

Mr. Neil Yoneji
Vice Chancellor
Fiscal Services
Saddleback Community College District

Dr. Phil Laughlin
Assistant Superintendent
Instruction
San Joaquin Delta College

Mr. Rich Rose
Counselor
Santa Rosa Junior College

Dr. Jim Hirschinger
Dean of Students
Sierra College

Ms. Norma Hernandez
Vice President
Student Services
Southwestern College

ERIC Clearinghouse for
Junior Colleges
APR 19 1991